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THE FINANCE COMMISSION
H.J.
9013 OF THE
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REPORTS AND COMMUNICATIONS

VOLUME XV.



CITY OF BOSTON
PRINTING DEPARTMENT
1920

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Boston
THE FINANCE COMMISSION

OF THE

CITY OF BOSTON

REPORTS AND COMMUNICATIONS

VOLUME XV.



CITY OF BOSTON
PRINTING DEPARTMENT
1920

BOSTON, January 31, 1920.

*To the Honorable the Senate and House of Representatives
in General Court Assembled:*

The finance commission submits herewith its report for the year 1919-20, as required by sec. 18 of ch. 486 of the Acts of 1909.

1. ORGANIZATION OF THE COMMISSION.

During the year there has been a change in the office of chairman of the commission. On February 15, 1919, John R. Murphy resigned to accept the office of fire commissioner of the city of Boston, and George A. Flynn, formerly assistant corporation counsel of the city, was appointed by the governor on February 19, 1919, to fill the vacancy. Mr. Flynn took office on March 1 and on the expiration of the term of the former chairman was appointed by the governor for five years on June 18, 1919.

Increases of salary in the sum of \$100 each were granted to the investigator and the two stenographers of the commission.

2. APPROPRIATION AND EXPENDITURES.

The commission requested and was granted the statutory appropriation of \$30,000 at the beginning of the fiscal year. The expenditures have been as follows:

Total net appropriation	\$30,000 00
Expenditures:	
Salaries, permanent employees	\$18,116 68
Salaries, temporary employees	881 63
Printing and binding	1,145 80
Postage	75 84
Transportation of persons	34 03
Light	64 60
Rent	3,068 71
	<hr/>
<i>Carried forward</i>	\$23,387 29
	<hr/>
	\$30,000 00

<i>Brought forward</i>	. . .	\$23,387 29	\$30,000 00
Communication	. . .	410 61	
Cleaning	. . .	36 00	
Experts' service	. . .	3,659 28	
Fees, services of venires, etc.	. . .	135 62	
Photographing	. . .	12 00	
General plant	. . .	59 52	
Furniture and fittings	. . .	215 92	
Office equipment	. . .	29 40	
Library equipment	. . .	79 68	
Office supplies	. . .	282 77	
Testing materials	. . .	30 00	
Ice	. . .	24 00	
		—	28,362 09
Unexpended balance	. . .		<u>\$1,637 91</u>

3. WORK OF THE COMMISSION.

During the past year the commission has held 41 meetings; there have been 191 hearings, 3 being public hearings, and 242 witnesses have been examined in various matters affecting the interests of the city of Boston.

All the members of the finance commission except the chairman serve without pay. The meetings of the commission have been attended by every member, except in cases where sickness or other imperative reasons have prevented some members from attending.

The commission has issued 72 reports and communications, of which 31 were published and 41 unpublished. The published reports were as follows:

- Feb. 7, 1919. The Mayor. Regarding the annual contracts for patch paving on the city's streets.
- March 13, 1919. The Committee on Metropolitan Affairs. Regarding proposed change in the tax limit of Boston.
- March 17, 1919. The Senate. Regarding Senate Bill 365, the so-called two-platoon bill, providing for a day and a night force in the Fire Department.
- March 24, 1919. The Senate. Regarding Senate Bill 373, providing for borrowing money inside or outside the debt limit for the construction of a street and otherwise improving conditions at the North End.

March 24, 1919. The Mayor. Regarding the letting of contracts for a less sum than \$1,000 but more than \$100.

April 2, 1919. The Mayor. Regarding acceptance of ch. 55 of the Special Acts of 1919, providing for an increase in the pensions of city employees.

April 21, 1919. The Mayor. Transmitting the report of Calvin Derrick on conditions at the Charles Street Jail.

May 8, 1919. The Mayor. Regarding bids and specifications for coal tar and bituminous road binders.

May 10, 1919. The Mayor and City Council. Regarding acceptance of ch. 46 and 141 of the Special Acts of 1919, providing respectively for payment of a pension to Timothy R. Sullivan and an annuity to the widow of Thomas H. Lynch.

May 14, 1919. The Mayor. Regarding the payment of bills of J. J. Hurley & Co. and of the Pennsylvania Tile and Construction Company for work at Long Island.

May 17, 1919. The Mayor. Regarding the immediate appointment of an architect to fill the vacancy on the Schoolhouse Commission.

June 24, 1919. The Mayor. Regarding leases of Faneuil Hall and Quincy Markets.

July 16, 1919. The Committee on Cities. Regarding proposed increase of pensions to four beneficiaries of the Police Department, as provided in Senate Bill 638.

July 18, 1919. The Mayor and City Council. Regarding pending loan orders for playgrounds.

July 19, 1919. The Mayor. Regarding the purchase of a large asphalt mixing plant.

Sept. 2, 1919. The Mayor. Regarding the purchase of nonasphaltic road oil by the city.

Sept. 6, 1919. The Mayor and City Council. Regarding the abandonment of the House of Correction at Deer Island and the transfer of the inmates to state control.

Sept. 10, 1919. The Mayor and City Council. Regarding the statement of the Penal Commissioner in regard to abandoning Deer Island.

Sept. 20, 1919. The Mayor and City Council. Regarding the proposal to abolish the office of Clerk of Committees.

Oct. 18, 1919. The Mayor and City Council. Regarding proposed alterations and improvements at the Charles Street Jail.

Oct. 21, 1919. The Mayor. Regarding acceptance of the act providing for a two-platoon system in the Fire Department.

Oct. 31, 1919. The Mayor. Regarding methods employed by the Bermudez Company for laying sheet asphalt on Conant, Smith and Parker streets, Roxbury.

Nov. 7, 1919. The Mayor. Regarding saving by purchasing current from the Edison Electric Illuminating Company for light and power at City Hall and City Hall Annex.

Nov. 12, 1919. The Mayor. Regarding acceptance of act providing for the payment of a pension to Bernard J. Kelley, formerly employed as a police officer.

Nov. 25, 1919. The Mayor and City Council. Regarding increased rentals for Faneuil Hall and Quincy Markets.

Dec. 3, 1919. The Committee on Municipal Finance. Regarding bills providing for increases in salaries of teachers and other employees of the Boston School Committee.

Dec. 5, 1919. The Mayor. Second report regarding paving contract of the Bermudez Company for work on Conant, Smith and Parker streets, Roxbury.

Dec. 8, 1919. The Committee on Municipal Finance. Regarding proposed increase of \$5 in the city's tax limit.

Dec. 13, 1919. The Mayor. Regarding abandonment of the Suffolk School for Boys.

Dec. 15, 1919. The General Court. Regarding bills providing for increases in salaries of teachers and other employees of the Boston School Committee.

Jan. 16, 1920. The Mayor. Regarding the collection of refuse in the contract districts of the city and the proposed contract forms for 1920-21.

The unpublished reports were as follows:

Feb. 3, 1919. The Committee on Cities. Asking for opportunity to submit a report on the acceptance of Senate Bill 218, providing for the payment of a pension to Bernard J. Kelley, a former police officer.

Feb. 4, 1919. The Committee on Cities. Opposing Senate Bill 176, providing for the reinstatement of John W. Leahon in the Public Works Department.

Feb. 4, 1919. The Committee on Cities. Opposing House Bill 452, providing for payment in cash to employees working overtime.

Feb. 4, 1919. The Committee on Cities. Opposing House Bill 271 providing for payment of a sum of money to the widow of Ellison B. Cushing.

Feb. 4, 1919. The Committee on Cities. Opposing House Bill 569, providing for the reinstatement of William F. Johnson in the Fire Department.

Feb. 4, 1919. The Committee on Cities. Opposing House Bill 684, providing for the reinstatement of Edward W. Chase in the Public Works Department.

Feb. 4, 1919. The Joint Committee on Judiciary. Opposing Senate Bill 46, establishing the office of public defender in Boston municipal courts, and Senate Bill 149, providing counsel for indigent defendants.

Feb. 7, 1919. The Mayor. Regarding the settlement of bills of Crowley & Hickey for work on certain fire houses.

Feb. 7, 1919. The Mayor. Regarding form of contracts and specifications for collection of refuse in contract districts of the city.

Feb. 7, 1919. The Mayor. Regarding letter of A. F. Rhodes and the history of granite block paving in Boston.

Feb. 18, 1919. The Mayor. Regarding proposed removal of city's force at the North End Paving yard to the Sanitary yard in the West End.

Feb. 18, 1919. The Mayor. Regarding claim of John E. Leahy Construction Company against the city.

Feb. 20, 1919. The Penal Commissioner. Regarding bill of Dr. J. H. Strong for services at Deer Island during the influenza epidemic.

March 7, 1919. The Committee on Metropolitan Affairs. Regarding Senate Bill 265, providing that printing and supplies for county departments be furnished by the city Printing Department.

March 8, 1919. The Corporation Counsel. Regarding the settlement of the bills of Crowley & Hickey for work on certain fire houses.

March 26, 1919. The Mayor. Opposing acceptance of ch. 42 of the Special Acts of 1919, providing for the payment of a pension to Thomas J. Downey.

April 2, 1919. House of Representatives. Regarding Senate Bill 373, providing for the borrowing of \$5,000,000 for improvements at the North End.

April 3, 1919. House of Representatives. Opposing the two-platoon system for the Fire Department.

April 3, 1919. The Mayor. Regarding the establishment of a playground at the South End.

May 7, 1919. The Mayor. Regarding increases of salaries proposed for probation officers.

May 10, 1919. The Committee on Education. Regarding House Bill 1647, providing for the borrowing of \$750,000 for the erection of a new Public Latin School.

May 16, 1919. The Mayor. Regarding proposed purchase of motor fire apparatus from the American-La France Fire Engine Company.

May 27, 1919. The Governor. Regarding the method of apportioning the deficit of the Boston Elevated Railway Company among the cities and towns served thereby.

June 3, 1919. The Mayor. Regarding methods employed in City Collector's office.

June 9, 1919. The Mayor. Regarding increased pensions to janitors and attendance officers of the School Department.

June 26, 1919. The Mayor. Regarding establishment of pension fund for library employees from fine money.

June 26, 1919. The Mayor. Regarding sale of four voting booths by the Election Department.

June 27, 1919. The Corporation Counsel. Transmitting the report of the consulting engineer on the claim of John A. Costello against the City of Boston.

June 30, 1919. The Mayor. Regarding bill of Bay State Flag Company for decorating city's grandstand the day of the parade of the Twenty-sixth Division.

July 10, 1919. The Chairman of Senate Committee on Ways and Means. Regarding House Bill 1900, providing for the consolidation of state departments.

Aug. 13, 1919. The Mayor. Second report on the establishment of a pension fund for library employees.

Sept. 4, 1919. The Mayor. Regarding acceptance of ch. 68, Resolves of 1919, providing for payment of a sum of money to the widow of Robert Herter.

Sept. 5, 1919. The Mayor. Report on salaries for city employees.

Nov. 6, 1919. The Commissioner of Public Works. Transmitting report of the consulting engineer on Section 10 of Stony brook conduit.

Dec. 19, 1919. The Mayor. Regarding the construction of granolithic sidewalks at Winthrop square, Charlestown.

Dec. 20, 1919. The Mayor. Regarding the method of purchasing cast-iron traps for catch-basins.

Dec. 23, 1919. The Mayor. Regarding cost of repairs to the steamer "George A. Hibbard."

Dec. 29, 1919. The Mayor. Regarding the wisdom of installing oil-burning apparatus at the City Hospital and possible savings thereby.

Jan. 2, 1920. The Mayor. Regarding the purchase of bathing suits and toweling material by the Supply Department for the Park and Recreation Department.

Jan. 3, 1920. The Mayor. Transmitting report of the consulting engineer on the proposed repairs to the "Noddle Island" ferryboat.

Jan. 22, 1920. The Mayor. Transmitting report of James H. Smyth in regard to the reorganization of the city's printing plant.

4. THE MOST IMPORTANT REPORTS OF THE COMMISSION.

The work of the commission during the year has consisted of the examination of the budget and reports thereon submitted to the mayor and city council, reports to the legislature and appearances before its committees, the investigation of certain departments and reports thereon, and the examination of contracts and pur-

chases of supplies and the examination of witnesses in relation thereto. The more important items of the work of the commission follow:

Budget Reports.

The commission, through its staff, examined the budget requests of all city and county departments. This work, as in previous years, required the examination in detail of the amount requested under each item in the segregated budget and occupied the greater part of the time of the staff of the commission for a period of two or three months.

The result of its work was, in the first instance, submitted to the mayor and was used by him in passing upon the requests of the several departments. The information thus given to the mayor was stated by him to have been of great value and assistance in reducing the requests for appropriations made by the heads of the departments. These reports contain practically the only information which the mayor receives in the nature of a critical survey of the requests of the heads of departments.

Many of the recommendations of the commission were accepted by the mayor and very substantial reductions were made in the budget.

Copies of the reports were given to the members of the city council after the mayor had submitted the budget to it.

The chairman of the commission attended the budget hearings of the city council, and, when requested by the council, explained its recommendations which had not been accepted by the mayor. The hearings were largely perfunctory, the only real interest displayed by several members of the council being to obtain increases in salary for certain employees who had not been granted increases in compensation.

The commission believes that this was an improper interference with the functions of heads of departments, was a violation of sec. 8 of ch. 486 of the Acts of 1909,

which provides that the city council shall not take part in the employment of labor or in the conduct of the executive or administrative business of the city and county, and tends to impair the authority of the heads of departments in the conduct of their departments.

The city council made no reductions in the total appropriations for the city departments as submitted by the mayor and reduced the county budget in the sum of \$5,126.39.

Legislative Reports and Hearings.

The matters involving the finances of the city before the regular and special sessions of the 1919 legislature were of great importance.

Several special pension bills on which the commission filed adverse reports were enacted by the legislature and accepted by the city council, only to be vetoed by the mayor on recommendation of the commission. Other acts seeking sums of money for relatives of city employees were rejected by the mayor on the advice of the commission.

The pension question is becoming one of first importance and will shortly require extended study. This is shown by the great increase in the expenditure therefor, which has increased from \$8,109 in 1879 to \$663,362.30 in 1918.

The Two-Platoon Bill.

The firemen have for many years petitioned the legislature for a law dividing the fire-fighting forces into day and night units. This legislation, although opposed by several public bodies, including the finance commission, was enacted last year with a referendum to the voters of the cities and towns.

The question appeared on the city ballot at the last state election and was rejected by the voters. In order that all the facts relative to the work of the firemen and the effect on the department by the adoption of the two-platoon system both as to cost and efficiency of personnel might be known to the public, the commission made a

comprehensive examination of and report on the work of the fire department. The facts stated in this report were given wide publicity by the newspapers and also furnished some of the material used by public bodies in their campaign against the adoption of the system.

The commission believes that, as the voters have definitely rejected the system, they should not annually be asked to vote on the merits of this measure. The city has ample authority to adopt the two-platoon system by ordinance if it is thought advisable, and then to reject it if upon trial it is found undesirable. The commission believes that the city of Boston should be exempted from the provisions of the act passed last year.

School Legislation.

The school committee requested legislation at the regular session for an increase in its appropriating power partly because of the reduction of the average of the valuations of the city on account of the exclusion therefrom of the valuation of incomes and intangible personal property, and also because the increase of appropriating power granted in 1918 was insufficient to meet increases in salaries granted at that time, and the increased cost of materials and supplies. The commission investigated carefully this request and found no reason to oppose it.

The school committee also petitioned for authority to borrow money for the construction of a new Public Latin School. This was a departure from the policy of constructing schoolhouses out of funds from the tax levy as recommended by the finance commission and embodied in ch. 267 of the Special Acts of 1916.

The commission investigated the building requirements of the school department and found that the funds available were needed for the construction of elementary and suburban high school buildings; that a new Latin School was required; that it was not possible to construct it out of the annual funds available under the tax levy, and that it was an unusual expenditure which

could not properly be classed as a recurrent expense. The commission did not oppose the borrowing of money within the debt limit for this purpose.

During the summer of 1919 the Elementary School Teachers' Association requested the school committee for an annual increase of \$288, which was, with requests from other grades of teachers, carefully considered by the school committee. The school committee petitioned the special session of the legislature for an increase in its appropriating power sufficient to grant increases to all the employees of the department, ranging in amount from \$72 to \$384 annually in the teaching force, and as high as \$756 in the supervising and administrative forces. The schedule proposed by the school committee will increase the cost of the schools by \$1,500,000.

The teachers endeavored, by a public campaign throughout the state, to obtain legislation requiring a flat increase of \$600 to all teachers in all grades. In this they were unsuccessful, though a very strenuous campaign was waged to obtain it. The commission reported to the legislature that the amount requested by the elementary teachers in June was a proper and adequate increase and that the proposed schedule of the school committee should be reduced 25 per cent., eliminating all increases to those whose maximum was in excess of \$4,212.

The legislature finally adopted the measure proposed by the school committee and the salary increases have been put into effect. Under the new salary schedule the city's annual school expenditure will amount to \$10,000,000.

The Tax Limit.

The mayor petitioned the regular session of the legislature for an increase of \$3 in the tax limit for the year 1919. This was opposed by the commission on the ground that by economy in the administration of the city substantial savings could be effected and that an

increase of \$2 would supply ample funds to maintain the departments. The legislature granted the request of the mayor.

The appropriations of the city were such that with the addition of the city's share of the deficit of the Elevated the tax rate for the year amounted to \$23.60. The rate would have been higher, except that the state tax on incomes over \$2,000, plus exemptions, was increased from \$15 to \$25 per thousand. This increase correspondingly increased the amount received by the city from the state and thereby decreased the rate on real estate and tangible personal property.

The mayor petitioned the special session of the legislature for an increase of \$5 in the tax limit for the years 1920 and 1921, which was opposed by the real estate interests of the city and by the commission. The commission based its opposition on the fact that the necessity for so large an increase in the tax limit, which is virtually an increase in the amount which the city is authorized to appropriate for the maintenance of the city departments, exclusive of the schools, could not be even approximately determined until the end of the fiscal year, when the amount of the surplus cash in the treasury would be known, and until an opportunity was afforded to examine carefully the appropriations requested by the departments.

The legislature finally granted the mayor an increase of \$4. While it is not yet definitely known how much free cash there will be in the treasury at the end of the fiscal year, it is estimated that it will be \$3,769,478 and that the department appropriations will show unused balances amounting to approximately \$494,689.

In view of the fact that substantial increases were granted to employees in several grades during the year, this surplus would seem to show irrefutably that the department heads had not accurately forecasted their needs and that the budget could have been reduced materially.

The Tax Rate.

The large tax rate for 1919 (\$23.60) is due in part to the amount of the deficit of the Elevated which the city was called upon to pay and which added \$2,905,930.87 to the tax. Another factor of importance was the passage of the Educational Bill, so called, which appropriated over \$3,000,000 of the funds received by the state from the income tax to what was really a payment of bonuses to those municipalities that paid to teachers in certain grades established minimum salaries. This bill was opposed by the commission, the city authorities and many others on the ground that the state should grant aid for educational purposes only to those municipalities which after investigation were shown to have provided out of their own resources all that can reasonably be expected of them, and that such sum was not adequate to provide proper educational facilities.

The effect of this legislation has been to reduce the city's distributive share of the income tax by about \$650,000 which has increased the tax rate about 43 cents.

The commission believes that the present high tax rate is a deterrent to the growth and prosperity of the city and that every effort should be made to reduce the present high cost of government.

Poll Taxes.

The city has never successfully collected poll taxes. Various reasons have been advanced for the failure to collect these taxes, but in view of the fact that several cities collect from 90 to 95 per cent. of their poll taxes, the failure to collect more than from 25 to 30 per cent. can be attributed only to a lack of efficiency in the collector's office. This is clearly shown by the recent activity in the collector's office, which has resulted in a distinct improvement in collections.

The commission during the year recommended in a public report that the bills be distributed by the police, which was done and resulted in a large increase in pay-

ments immediately following the distribution of the bills, and released the deputies from the burden of distribution, thus increasing their time for the actual collection of unpaid taxes.

The commission in December, 1919, when the Mayor was petitioning for an increase in the tax limit of the city, reported to the committee on municipal affairs that the collector's office should make a real effort to collect these taxes. The criticism of the commission resulted in a real effort at collections being made, with the result that on January 20, 1920, 36.4 per cent. of the poll taxes of 1919 had been collected, whereas in former years only 15.9 to 26.6 per cent. had been collected. In addition, for the first time in many years the collector issued a large number of warrants for the arrest of those who had not paid their poll taxes.

The collecting force has also increased its activities in the collection of unpaid real estate taxes with great success. Thus on January 20, 1920, 82.5 per cent. of the 1919 realty taxes had been collected, whereas last year on the corresponding date only 79 per cent. had been collected and two years ago 70.7 per cent. This increase of 3.5 per cent. represents approximately \$1,350,000 additional collected. The percentage collected by the end of the fiscal year will probably approach 85 per cent. of the total tax warrant.

The result of the recent efforts of the collector's office proves beyond question that the failure to collect poll taxes in the past was due to the failure to make a real effort to collect them.

Much, however, remains to be done in the collector's office, as the present activity, unless continued, may resolve itself into only a spurt of industry and the office return to a state of inactivity. The commission has recommended that the methods and organization of the collector's office be examined by the state bureau of statistics. This bureau has examined the office methods of several tax collectors in Massachusetts and is competent to undertake the work in Boston. The recom-

mendation, although made on June 3, 1919, has not been adopted by the city.

The Suffolk School for Boys.

The commission has on several occasions during the past ten years recommended that this institution be abandoned.

The care of all female minor wards and of all minor boys except those at the Suffolk School on Rainsford Island rests with the state. The city, through the state tax, pays practically 30 per cent. of their cost and all the expenses of the Suffolk School. This is an unjust and unequal burden which, coupled with the established fact that neither the location of the Suffolk School nor its equipment is proper and adequate, would seem to require its abandonment and the transfer of the care of its inmates to the state.

The commission renewed its former recommendations recently, when a contract for the construction of a new building for the school, to cost approximately \$138,000 was before the mayor for approval. The mayor has adopted this recommendation by instructing the trustees not to accept any more commitments which, as the present inmates' period of probation expires, will automatically depopulate the school within a year.

The benefits of this reform will be twofold — the expenditures of the city will be reduced \$50,000 annually, and the boys will be better cared for under the more complete equipment and opportunities for reform provided at the state institutions.

Deer Island House of Correction.

This institution has had an unsavory history. Many scandals have been associated with its administration in the past and it has been the subject of several investigations. Its population has greatly decreased during the last few years, falling from 1,582 in 1904 to 335 in 1919, due among other causes to probation and prohibition.

The commission made a survey of the state and county penal institutions and found that the prison population had fallen so low that two county institutions had been closed, and some branches of the state institutions were shut down, many of the county institutions practically empty, and that great economies could be accomplished if the county jails were consolidated.

The commission found that the state prison authorities were willing to accept the transfer of all the inmates of Deer Island without cost to the city, and therefore recommended the transfer and that an attempt be made to sell the institution to the state for a new state prison.

The transfer has not been made, though the pay roll of the institution has been reduced materially since the recommendation of the commission, and the mayor has taken steps, on the recommendation of the commission, to place before the proper authorities the desirability of the institution as a location for a state prison. On the basis of the expenditure of the current year, the closing of the institution would effect a saving of \$200,000 annually. If Deer Island can be sold to the state a very substantial sum should be realized, which could be applied to the reduction of the debt of the city.

The Charles Street Jail.

This building is nearly 100 years old. There has been for several years an agitation for improvements in the building, the most serious criticism being of the "bucket system," so called.

A loan order for \$150,000 for improvements at the jail was passed during the closing days of Mayor Curley's administration, but the bonds were not then issued. This was not done until after a report by the commission on April 21, 1919, that the repairs and alterations contemplated should be made.

Bids were called for and the cost was found to be greatly in excess of the amount of the loan. The commission then withdrew its recommendation and on

October 18, 1919, in view of the low prison population in all the institutions throughout the state and the apparent effect of prohibition, recommended that the expenditure, which it then appeared would be in excess of \$300,000, be not made. The commission believed that the expenditure should have been postponed until conditions became settled and it was found what was to be the policy of the state toward the consolidation of the penal institutions.

Purchase of Oil by the Supply Department.

The commission has investigated the purchase of non-asphaltic road oil by the supply department for the street cleaning division of the public works department, and found that the charter provisions requiring the advertising of all purchases amounting to over \$1,000, unless written authority to dispense with the advertising was obtained from the Mayor, had been disregarded.

The American Oil Products Company was awarded an advertised contract for 40,000 gallons of non-asphaltic oil as the lowest bidder, at 8.45 cents per gallon, the oil to comply with specifications furnished by the bidder. In order to demonstrate the superior quality of an oil on which he had bid to supply the city at 9.9 cents a gallon, this contractor shipped one car of the higher priced oil at his contract price. The division engineer, Edward F. Murphy, testified that he found the higher priced oil to be superior and recommended it to the commissioner of public works. Subsequently 42 cars were purchased, containing approximately 360,000 gallons, from this contractor at 9.9 cents a gallon.

The contractor, Matthew P. Scullin, who did business under the name of the American Oil Products Company, testified falsely before the commission as to certain alleged charges by the Tide Water Oil Company to him, in an attempt to justify the billing to the city of a larger number of gallons than was billed to him by the oil company.

The failure of the superintendent of supplies to conform to the charter requirements was flagrant and he was discharged by the mayor. The detailed facts of this investigation are set forth in the report of the commission. Since the date of that report additional facts have been brought to the attention of the commission and the investigation has been reopened.

The Printing Plant.

An investigation of the printing plant disclosed that the present superintendent has conducted the business of the plant on a business basis. The number of employees has been kept within proper limits during the months of normal activity and additional employees put on during the rush period. Stationery supplies have been bought economically and unused space has been sublet for \$2,100 a year. The investigation showed that with a change in equipment important savings can be accomplished. The superintendent has agreed to make these changes if authorized by the mayor, and believes that a very substantial saving can be thus accomplished.

The Treasurer's Office.

The present city treasurer has adopted a system of paying all bills and a large number of employees paid on monthly rolls by check. This change has been urged by the commission for several years. In addition he has changed the former system of paying City Hall employees at the treasurer's office, which frequently entailed a great loss of time. These payments are now made by the paymasters at the respective offices in City Hall between the hours of four and five every Friday afternoon. In addition the office system has been modernized and simplified, reductions made in the number of employees, increases granted to all employees and a saving made in total pay roll expense. The rate of interest on inactive city accounts has been increased from 3 per cent. to $3\frac{1}{2}$ per cent., and on active accounts

from $2\frac{1}{2}$ to 3 per cent. These increased rates will yield upwards of \$20,000 a year additional interest payments to the city.

The finance commission desires to commend the superintendent of printing and the city treasurer upon the administration of their respective offices.

Market Leases.

The market leases of Faneuil Hall and Quincy Market expired on December 31, 1918. The finance commission called the mayor's attention early in November of that year to the necessity for a re-study of the market situation before new leases were made out. The leases were for a ten-year period and the superintendent of markets recommended no increase in the rentals for the stalls. The finance commission believed this recommendation to be unwise and accordingly advised the mayor of the need for a revaluation of the leases. The study was made and as a result of the gratuitous assistance given to it by three eminent real estate operators in Boston, viz., Francis R. Bangs, Richards M. Bradley and F. Murray Forbes, the commission submitted a report to the mayor in which the stall rentals were increased 15 per cent., the upper stories raised from \$7,186 to \$22,269.55, and in addition new charges made for the sub-sidewalk space around the two buildings. This increased rental will net the city the additional sum of \$397,247 for the ten-year period of the leases.

Abolition of the Power Plant in the City Hall Annex.

In 1912, when the City Hall Annex was being constructed, the finance commission advised the city authorities to purchase the electric current for elevator and lighting facilities from the Edison Electric Illuminating Company, as such service would be cheaper and more economical for the city than the installation and operation of an independent plant. The advice was not followed and the city installed its own power plant. The cost of the plant has risen each year. In 1919 the

finance commission pointed out the extravagance of the city in its maintenance of this plant and again urged the transfer of the service to the Edison Electric Illuminating Company, in order to save the city's money. Again the advice was not heeded and the city continues to support the more expensive arrangement.

Abolition of Office of Clerk of Committees.

Another possible reduction in the city's expenditures was called to the attention of the city government on September 20, on the death of the incumbent of the office of clerk of committees. The legislature of 1909 had abolished by sec. 1 of ch. 486 of the Acts of 1909 the office of clerk of committees as an unnecessary adjunct of the city's service. The city council, however, was allowed to employ certain assistants and immediately added the clerk of committees to its staff. Besides the clerk there is an assistant clerk of committees, as well as a city clerk and an assistant city clerk. The commission urged the city council not to fill the vacancy, pointing out that the assistant clerk of committees or the assistant city clerk would amply fill all the duties of the office and thus save this salary for the legitimate city needs. The position was filled.

The Removal of the North End Yard.

The North End yard of the public works department is situated in a very valuable and growing district of a high class residential character. A short distance away is another yard, called the West End yard. A consolidation of the two would in time effect many lessened charges and enable the department to use the supervising officials of the former yard in other services of the department. It would also allow the city to dispose of the land at a very good price and thus bring the land into the taxable lists, unless it were purchased by the Massachusetts General Hospital Association. The commission pointed out these advantages to the city authorities, but the reform remains unadopted.

Installation of Oil-burning Equipment.

The commission made a study of the advisability of installing oil-burning equipment in city buildings, so as to do away with the use of coal for heating purposes. It first studied the question for the City Hospital and recommended that oil-burning equipment be purchased for the hospital department. This recommendation is in line with the progressive action of public and private corporations which are installing these devices in their institutions. The Harvard Medical School and many mercantile buildings downtown have installed the system to great advantage. The City Hospital trustees are now considering the matter.

Faulty Specifications for Collection of Refuse in Contract Districts of the City.

In some districts of the city refuse is collected by the labor forces of the city. In others it is collected by contractors who have contracts for the same with the city. These contracts are made yearly, in January or February. Formerly the sum paid was based upon a monthly rate for doing the work under contract, which required regular collections of garbage twice a week and of general refuse once a week.

Last year the monthly lump sum payment was discarded in favor of a new system which provided for a payment per cubic yard by the contractor. The easy possibility of complicity between contractors and inspectors as to the size of the loads and their number was so apparent that the finance commission called the mayor's attention to the need for revising the specifications so as to render such a combination impossible. The mayor declined to adopt the commission's view and the new system was installed. The commission's predictions have been fulfilled, with the result of an increased cost of \$45,000 a year with no increase in the efficiency of the service. Thus the collections in the Dorchester district show for the years 1915 to 1918 a uniform number of cubic yards collected, but under the new system in 1919,

when the contractor was paid on the cubic yard basis, the number jumped from 135,130 cubic yards of ashes in 1918 to 175,000 in 1919, and from 17,304 cubic yards of garbage in 1918 to 30,000 in 1919. Evidence obtained by the finance commission shows that neither increased efficiency nor more frequent collections have resulted from the change. The finance commission has again called the city officials' attention to the fulfilment of the commission's warnings and the necessity for revising the specifications, in order to eliminate for this year the added expense of these collections.

Street Pavements and Purchase of Large Asphalt Mixing Plant.

During the past two years an unusually large portion of the city's expenditures for paving has been devoted to the repaving with granite or wood block of the granite paved streets in the downtown, congested district. This work has been done almost entirely by contract and the expense has necessarily been large. The finance commission believes that in many cases the city could, with economy, have re-used the old granite paving blocks by turning them over and so placing them that the unworn lower surface would be uppermost, which would have resulted in a very large saving.

The only large areas so paved are the portions of Atlantic avenue between Dewey square and Broad street, and Commercial street from Atlantic avenue to Washington Street North. A saving of approximately \$65,000 was made from the area in question and a proportionately greater saving would have been accomplished had the policy been followed for the entire length of Atlantic avenue and other streets in which the old blocks were suitable for relaying.

In the Back Bay and suburban districts comparatively large areas have been resurfaced by contract with bituminous sheet pavements, of the sheet asphalt, Topeka and bitulithic types. These pavements require the use of expensive mixing machinery of a cost beyond

the means of the ordinary small contractor. As a result the work has been divided among three firms possessing such mixing machinery and contractors to whom these firms were willing to sell mixed material.

The commission has studied the matter and finds that many cities have installed mixing plants and thereby accomplished great economies in the cost of their bituminous pavements.

The finance commission recommended that the city of Boston purchase a plant and furnish the mixed material for laying to contractors at standard prices. This policy has been adopted by a number of cities in the West with success. If such policy is adopted the finance commission believes that the city of Boston could save at least 50 per cent. in the cost of its bituminous pavements.

Street Contracts and Street Pavements.

On account of the rapidly increasing use of pavements involving the use of bituminous materials, the finance commission has given special attention to specifications for such materials and the forms of contracts used for such work. During the past year the recommendations made in various reports of the finance commission that all types of bituminous pavements having substantially equal merits be admitted in equal competition have been in general followed by the responsible officials of the public works department. Unfortunately there have been many cases of lax supervision and inspection, and as a result the work as a whole has not been of such a durable character as might have been secured without additional cost.

A particularly flagrant case was called to the attention of the commission in connection with the placing of sheet asphalt pavements in Smith and Conant streets, in the Roxbury district. Although all of the well-known precautions necessary to secure a suitable pavement were violated, it was only after a report made by one of the most prominent experts in the country in the class of work had completely sustained the previous report by

the finance commission that it was orally agreed by the city officials that the imperfect work should be removed and relaid at the expense of the contractor during the ensuing season.

As regards the purchase of bituminous materials for use by the day labor force of the public works department, the finance commission has consistently advocated its policy of allowing free competition between all materials of substantially equal merits. Nevertheless, the practice of advertising for bids for proprietary bituminous materials, which can only be furnished by a single company, or of buying such articles without the form of competition still continues to a marked extent, and as a result a considerable amount of money is being wasted annually in the purchase of goods having no merits over the goods of other manufacturers that might be purchased at a much less price.

The specifications for the annual contract for repairing bituminous streets, as has been the custom for at least two years past, were advertised in a form that made the specifications particularly susceptible of manipulation to the benefit of a favored bidder. As a result of the report of the finance commission, pointing out the weaknesses of these specifications, new contracts were prepared and bids were received which were undoubtedly more economical to the city than would have been the bids received under the original specifications. In some other cases, also, notably as regards the specifications for wood block pavement and for building a portion of the Stony brook conduit, the commissioner of public works has shown a commendable willingness to make changes in specifications in compliance with criticisms and recommendations of the finance commission.

Respectfully submitted,

GEORGE A. FLYNN, *Chairman.*

JOHN F. MOORS.

JAMES M. MORRISON.

COURTENAY GUILD.

J. WALDO POND.

PART II.

OFFICIAL COMMUNICATIONS.

COMMUNICATION TO THE MAYOR
in relation to
THE ANNUAL REFUSE DISPOSAL CONTRACTS.

BOSTON, February 7, 1919.

Hon. ANDREW J. PETERS, *Mayor:*

SIR,—On January 31, 1919, the Finance Commission sent to Your Honor a criticism of the provisions of the specifications and contracts under which it was proposed to award the annual contracts for collecting and disposing of city refuse.

The commission has been informed that, notwithstanding its criticisms, Your Honor has awarded without change in the specifications all of the contracts in question except the rubbish contract for the Dorchester district and the offal contract for the East Boston district. The Finance Commission regrets your action in this matter, as it believes it will cause a large and unnecessary expense to the city.

As regards the Dorchester contract, the Finance Commission finds that it has been readvertised under specifications incorporating nearly all of the changes recommended by the commission. One change, and the most important, however, has not been adopted; that is, the change in the method proposed of paying for the refuse collected at a price per cubic yard. The Finance Commission does not believe that your subordinates have placed the facts before you in such a manner that you realize the importance of changing this provision, and therefore requests the privilege of a personal interview to explain its views on this and some other matters at some date before the new bids are opened, which, it understands, will be at twelve o'clock on Wednesday, February 12.

Respectfully submitted,
THE FINANCE COMMISSION,
by JOHN R. MURPHY,
Chairman.

COMMUNICATION TO THE MAYOR

*in relation to*UNBALANCED BIDDING IN CONNECTION
WITH THE ANNUAL PATCH PAVING
CONTRACTS.

BOSTON, February 7, 1919.

HON. ANDREW J. PETERS, *Mayor:*

SIR,— There has been lodged with the Finance Commission another complaint regarding unbalanced bidding in connection with the annual contract for patching bituminous pavement in any street in the City of Boston in which the guaranty of the contractor has expired.

Previous to the contract of 1917 the city did this work under contracts substantially constant in their provisions. Satisfactory work was in general secured and there were practically no complaints of unfairness as regards bidding or in the award of the contracts. Each year since, including the year 1917, changes have been made in the form of contract and specifications. So far as the interests of the city have been concerned there was no apparent reason for making these changes, and it is undoubtedly a fact that each succeeding contract has been less effective for protecting the interests of the city than was the preceding one.

The contract under consideration is no exception to the rule. The changes in the contract now being considered include provisions for wearing surface 2 inches deep — in addition to the customary provision for wearing surface $1\frac{1}{2}$ inches deep — a change whereby all of the bituminous binder is to be paid for separately from surfacing material, at a price per cubic yard measured in place, and a provision inserted only a short time before bids were received which allowed the substitution

of screened gravel for crushed stone in the binder course, if the contractor desires.

There are significant facts to indicate that contractors were interested in having changes made. In the last two annual competitions a single firm has submitted bids that were plainly unbalanced, apparently with the idea of securing advantage over other contractors and at the same time higher prices for the essential items of the contract than would have otherwise been possible.

The Finance Commission has submitted numerous reports on the subject of unbalanced bidding and other methods employed by contractors to secure unfair advantages over competitors. On March 27, 1918, it submitted a special report regarding unbalanced bidding on the contract for bituminous patch paving for the year 1918-19. The greater part of that report is applicable to present conditions and need not be repeated. As a result of that report the bid of the lowest bidder was rejected and the contract was awarded to the second lowest bidder.

Considering in detail the effect of the changes made in the present year's contract form, as already outlined, the reason for inserting an item for bituminous wearing surface 2 inches deep is not clear. The standard thickness of wearing surface for sheet asphalt, as laid in the City of Boston, is $1\frac{1}{2}$ inches, and it has been customary in case the pavement to be repaired is of greater depth to make up the difference in depth with a binder course.

It may be that the commissioner intends to use 2-inch wearing surface for repairing bitulithic streets which were originally laid of material 2 inches thick, or it may be that the item is for repairing old asphalt streets where the thickness has been so decreased by wear as not to allow a binder course composed of the size stones specified in the contract. If the first assumption is the correct one the item is not necessary. As previously stated, bitulithic is 2 inches thick when new. None of the work to be repaired is less than five

years' old and the greater part is more than ten years' old. Therefore little of it will be found that is more than $1\frac{1}{2}$ inches in thickness.

If the item in question is to apply to bitulithic pavement it would seem to be advisable to have still another item calling for surfacing material $1\frac{3}{4}$ inches thick, and perhaps still another dividing the thicknesses into eighths of an inch.

If the item is intended for the purpose of replacing sheet asphalt that is so worn that a binder course cannot be used the item is unnecessary, as the additional cost for surfacing mixture over the cost of binder mixture is not sufficient to be worthy of attention, considering the small amounts required.

The change whereby all of the bituminous binder is to be paid for separately from the wearing surface, at a price per cubic yard, does not seem to be an advisable one so far as the interests of the city are concerned. In contracts previous to the one at present under consideration the principal item, and the only one which was of great importance, was for combined wearing surface and binder, paid for at a price per square yard. There was, however, a small item of 50 cubic yards of binder to be paid for by the cubic yard. Very little work was done under this item, and the only use was in case the foundations had settled, or there were holes to be filled up which required an unusual thickness of binder. In a binder course of the usual thickness it is impossible to secure accurate measurements after the work has been completed. The only practical way of accurately determining the thickness is by elevations determined by engineers before the work is put in place, and another corresponding set of elevations taken after the completion of the work, the average difference of these two sets of figures being the average thickness of the material. To follow this method would involve an expense for engineering work out of proportion to the value of the results secured.

As regards the insertion of a provision whereby gravel may be used instead of crushed stone, there seems to be

no reason for the change. At present prices the substitution would probably make an average reduction to the contractor per cubic yard of about \$1. If gravel is good enough for the purpose there is no reason why crushed stone should be specified. If, on the other hand, crushed stone is necessary to secure the best work, then crushed stone should be specified and gravel not allowed. The only reason for the change seems to be that some contractors may have special advantages in securing a gravel supply or difficulty in securing a crushed stone supply.

The method of unbalanced bidding applied to the contract in question is as follows: For the item calling for 1,500 cubic yards of bituminous binder the Central Construction Company has submitted a bid of \$5 per cubic yard, approximately one half the actual cost of the work. The bids of the other four contractors were from \$12 to \$15 per cubic yard. It is impossible to predict what the total bid of the Central Construction Company would have been had it submitted an adequate price for bituminous binder. In such case it may be that the Central Construction Company would not have been the lowest bidder. On the other hand, it is probable that if the Central Construction Company had submitted an adequate price for the bituminous binder it would have lowered its price for the other items correspondingly and still have been the lowest bidder. It is apparent that the company did not expect that it would be obliged to place the full amount of binder specified, with a consequent loss of perhaps \$7,500, and the details of the specifications appear to warrant that assumption. Moreover, the binder course will ordinarily be less than 1 inch in thickness, and it is therefore clear that a very small error in measurements will make a great percentage of increase in the amount calculated. For example, in a binder course 1 inch in thickness a mistake of $\frac{1}{4}$ of an inch in measurement would increase the quantity paid for by 20 per cent., or decrease it 25 per cent., according as the measurement was more or less than the correct dimension.

There are two satisfactory methods of payment available for work of this kind, and either one or the other should be adopted by the Public Works Department. Either the department should return to its practice, as shown by the contracts, previous to 1917 of paying for bituminous patching per square yard, including wearing surface and necessary binder, or if it is desired to pay for binder separately from surfacing material the materials should be weighed at the mixing plant and payment for both surfacing material and binder be made at a price per ton, in place on the street.

The Finance Commission, in the matter of this report, does not intend that the major part of its criticism be directed at the contractor. It recognizes the temptation to a contractor to take advantage of the weaknesses in a contract form by any manner not specifically prohibited by law. The Finance Commission, therefore, directs its principal criticism against the department officials responsible for furnishing the opportunities to contractors. It believes that it is high time to adopt a standard form of contract with definite provisions and to reject all bids that are plainly unbalanced. The attention of the Commissioner of Public Works is again called to the recommendation of the Finance Commission contained in its report of March 27, 1918:

That no bids which are plainly unbalanced be accepted in any case.

As regards the contract now under consideration, the Finance Commission recommends that bids be rejected and that new bids for the work be invited according to revised specifications.

Respectfully submitted,

THE FINANCE COMMISSION,
by JOHN R. MURPHY,
Chairman.

COMMUNICATION TO THE MAYOR
in relation to
GRANITE BLOCK PAVING.

BOSTON, February 7, 1919.

HON. ANDREW J. PETERS, *Mayor*:

SIR,—The Finance Commission acknowledges the receipt of your letter of January 13, inclosing a letter from A. F. Rhodes, field engineer of the Granite Block Paving Manufacturers' Association. Although your letter apparently does not call for an answer, the Finance Commission submits herewith a few facts regarding the subject at issue.

If it is assumed that Mr. Rhodes's interest in the matter is entirely on account of loftiness of purpose and a desire to save the City of Boston from the incompetence of its own legally constituted professional advisers, it still seems that Mr. Rhodes's letter is lacking in direct specifications and in fact it is doubtful if his position differs greatly from the position taken by the Finance Commission as regards the use of second-hand blocks. In no case has the Finance Commission recommended the use of unsuitable blocks. It has specifically recommended that only blocks suitable for the purpose be used, and that the character of the street traffic be taken into consideration in judging the suitability of blocks for specific locations.

The Finance Commission has had examinations made of many of the streets paved with second-hand and recut blocks, and in general finds them in excellent condition. The defects are no greater than in an equal number of streets which have been paved with new blocks. In fact the two streets, Causeway street and the portion of

Atlantic avenue between Dewey square and Broad street, to which particular attention has been given by the Finance Commission, appear to be markedly less defective than the portion of Atlantic avenue which has been paved with new blocks, especially that portion between Clinton and Richmond streets.

The two streets above outlined are the only ones inspected by the Finance Commission during construction. The commission feels certain that the work in these streets is of excellent quality, and it believes that their present condition furnishes ample justification for any recommendations which it has made. Had Your Honor observed the recent work of the Edison Electric Illuminating Company when removing portions of the newly laid pavement on Atlantic avenue near Pearl street, you would have been convinced of the durability of the pavement under any conditions of traffic.

As Mr. Rhodes and the Finance Commission both desire Your Honor to inspect the work, the commission believes it would be a good idea to comply with the requests, giving especial attention in your examination to the condition on Atlantic avenue and Causeway street, but examining State street, near Merchants row, with particular reference to the report of the Finance Commission dated October 3, 1918, made during the progress of the work.

In the matter of Mr. Rhodes's connection with the paving problem of Boston the Finance Commission fails to understand the importance that seems to be attached to Mr. Rhodes's advice by some, at least, of the officials of the Public Works Department. There seems to be no warrant for imposing great confidence in the advice of Mr. Rhodes beyond the confidence placed in any agent having a variety of building material for sale.

The Finance Commission believes that the discussion over the ideas advanced by Mr. Rhodes has been unfortunate, in that it has obscured the real issue, which is the suitability of different classes of pavements for use

under the different traffic and other conditions connected with streets of the city.

The Finance Commission feels that, in advocating certain types of pavement, it has been obliged to discuss and to answer objections which were founded upon trivialities, rather than upon matters of importance. For example, it has been obliged to argue the matter of relative smoothness of old and new granite blocks for heavy teaming traffic, the æsthetic appearance of blocks varying in size by small amounts, and similar unimportant matters, while the main question has been neglected. The Finance Commission, therefore, as pertinent to the granite block paving question, invites Your Honor's attention to a short history of grouted granite blocks as laid in the City of Boston.

As Your Honor is aware, a large part of the Boston business district is built on filled land, particularly the streets along the waterfront, streets in the area formerly occupied by the old Mill Pond at the North End, and streets in the South End and Back Bay. These streets are continually settling and the various structures occupying the streets are also settling. This settlement results in an excessive number of openings necessary to repair broken joints in the case of gas mains, water pipes, electric wires, etc. Therefore the interests of the public service corporations require a pavement that can be easily and cheaply replaced.

In the years 1900 and 1901 large areas of grouted granite block pavements were laid in Boston. This work is apparently forgotten by various street superintendents of small Massachusetts cities who pose as experts in, if not originators, of this type of pavement. Among the streets laid in Boston at that time were Atlantic avenue, Commercial street, Dock square, Adams square, Milk street, Summer street, High street, Franklin street, Congress street, Pearl street and Columbus avenue outward from Roxbury Crossing, and other streets. The type of pavement immediately encoun-

tered the violent antagonism of the Master Teamsters' Association, the Society for the Prevention of Cruelty to Animals, and the public service corporations. The objections were that the pavement did not furnish a suitable foothold for horses, that it was slippery and consequently cruel for horses, and that, as already stated, it could not be properly repaired after being opened. All these objections are worthy of consideration in determining the best pavement for a given locality. The unreasonable opposition of these objectors at that time prevented the city authorities from laying any more pavement of the type. In addition the city was obliged to spend large sums in cutting out, by hand labor, the cement from the joints, thereby making the pavement sufficiently rough to give a foothold for horses.

Nearly all of the pavements on the streets above mentioned have disappeared on account of the large number of openings made by city departments and public service corporations, which have been allowed to substitute, in replacing pavement, a quality of work inferior to the original pavement. The only street in which a considerable area of the original pavement still remains is Commercial street, between Clinton street and Atlantic avenue.

It is certain that the necessity for opening these streets will be continued and whatever the possibility of replacing the pavement properly may be, Your Honor may be assured from past experience that it will not be so done. Your Honor has only to consider the case of the work done on School street, in which new pavements were placed less than two years ago and in which there have already been about twenty openings, to see what will happen to an even greater extent on the filled streets about the waterfront. The fact that the condition of School street is guaranteed by the contractor for five years from the date of completion and the contractor can collect from the corporations the full cost of making repairs is all that has prevented its rapid deterioration.

A good example of what will happen to this street after the guaranty has expired will be shown by an examination of Commercial street, between Clinton street and Atlantic avenue, one of the streets paved during 1900-01. In Atlantic avenue the paving blocks have been relaid over a great part of the area at least three times since it was paved in 1901. The blocks were originally laid with grout joints, were relaid with pitch and pebble joints and again with sand joints. This case is perhaps exceptional, as much of the work was caused by the building of the Boston Elevated Railway and the station of the Edison Electric Illuminating Company. A large part of the easterly side of the street is now built upon pile foundations and timber platforms, which are continually decaying, and you may be reasonably assured that much of the pavement will be relaid within a few years.

The Finance Commission heartily approves the use of grouted granite block pavement for streets on solid ground and in streets where conditions plainly require it, but seriously doubts if it is, all conditions considered, the best pavement for universal use in the streets about the waterfront, where the traffic is of a heavy, slow-moving variety, and where extreme smoothness is a minor consideration.

The Finance Commission recommends to Your Honor that, before the paving program for the season of 1919-20 is adopted, studies be made along the lines indicated so that the class of pavement laid may be suitable to traffic on the streets. These studies should include such elements as cost, character of traffic, grades, needs of permanent residents, character of underlying soil, probability of laying additional underground structures, and other pertinent questions.

If a study along the lines above recommended is made the Finance Commission believes that opportunities will be found for the economical use of all of the old paving blocks now on hand, as well as those that will be removed during the present year, the blocks to

be used either in their present state or recut, as their condition warrants. Streets will be found where the use of new blocks will be clearly indicated as being advisable. There will be found streets in which the use of grout joints is clearly indicated as being the best, other streets where conditions demand the use of the pitch and pebble joint, and possibly some streets requiring the old-fashioned sand joint.

Respectfully submitted,

THE FINANCE COMMISSION,
by JOHN R. MURPHY,
Chairman.

COMMUNICATION TO THE MAYOR

*in relation to*ABANDONING THE NORTH END
PAVING YARD.

BOSTON, February 18, 1919.

HON. ANDREW J. PETERS, *Mayor:*

SIR,— In a recent issue of one of the daily papers was an article stating that in view of the damage done by the recent explosion at the North End it was the intention of the Commissioner of Public Works to abandon the North End paving yard and to remove the force to the sanitary yard on North Grove street, in the West End district. In this connection the commission respectfully calls your attention to the transaction of 1909, when it was attempted to exchange the North Grove street yard, containing 45,152 square feet, for 45,000 square feet adjoining the North End paving yard, this land being the land on which the molasses tank was situated when it exploded, and apparently now the property of the Boston Elevated Railway Company.

The sanitary yard on North Grove and Fruit streets has been a nuisance and a detriment to the development of that portion of the city for many years. The teams leaving the yard as early as half past three in the morning during the summer season pass through West Cedar street and other streets leading over Beacon Hill, and have been a great nuisance to residents as well as deteriorating the value of property. These teams also are obliged to pass and repass through the busy streets of the financial district, such as Pearl, Congress, Devonshire, State, etc., with consequent annoyance to the tenants in the buildings on these streets and congestion of street traffic. If the proposed exchange had been effected this traffic would have been in greater part diverted to Altantic avenue and the other waterfront streets.

The yard itself adjoins the grounds of the Massachusetts General Hospital and is a breeding place for odors and flies, to the detriment of sanitary conditions at the hospital. In February, 1909, a proposition was made by Mr. W. H. H. Foster, representing the Massachusetts General Hospital, to buy the city yard on North Grove street, in order to abate the nuisance to the hospital. The proposal was assented to by the then superintendent of streets and a lot of land adjoining the paving yard at the North End was selected for the exchange, the hospital authorities having secured an option thereon. The city would have gotten the advantage of about \$28,000 in the assessed value and substantially the same number of square feet in area, together with additional waterfront, and in addition would have secured land better located for its purpose. The hospital authorities, as well as the entire Beacon Hill district, would have been relieved of a nuisance.

The transfer was blocked by certain members of the Board of Aldermen, for reasons which it is not necessary to recount at the present time.

It seems to the commission that the present may be a good time for adjusting the matter as then proposed. Although the land at the North End is now owned by the Boston Elevated Railway Company, it was apparently leased by it to the distilling company and it may be that the land is not necessary to the Elevated Railway Company and that it would be willing to dispose of it, particularly in view of its present financial condition. It is also possible that the hospital authorities will be very glad to negotiate for the purchase of the West End yard. If the matter is to be acted upon, arrangements for the purchase of the North End property and the sale of the North Grove street yard should be made simultaneously.

Respectfully submitted,

THE FINANCE COMMISSION,

by JOHN F. MOORS,

Acting Chairman.

COMMUNICATION TO THE COMMITTEE
ON METROPOLITAN AFFAIRS

in relation to

THE ADVISABILITY OF HAVING THE COUNTY
PRINTING DONE BY THE MUNICIPAL
PRINTING PLANT.

BOSTON, March 7, 1919.

To the Honorable the Committee on Metropolitan Affairs:

GENTLEMEN,—The Finance Commission desires to be recorded in favor of Senate Bill No. 265, which has been referred to your committee.

The City of Boston requires by ordinance all departments to obtain their printing, office supplies and stationery from the City Printing Department. The purpose of this ordinance is to obtain uniformity of supplies and the benefit of large purchases at wholesale prices.

The county departments are not subject to the provisions of this ordinance and have in some instances refused to send their printing to the municipal plant or to purchase their supplies and stationery through the Printing Department.

The Superintendent of Printing states that the county printing, which is now done by private concerns but paid for by the City of Boston, amounts to about \$24,000 annually, and that the organization of his plant is such that this printing, including the rush work of the courts, can be done without increasing the pay roll or paying overtime, and that the labor cost on the county printing bill, which is about \$16,000, will be saved to the city if this bill is enacted. If it is claimed by opponents to the bill that private concerns have submitted lower bids than the printing plant, the commission desires to call the attention of the

committee to the fact that when the work is awarded to private concerns the profit is, of course, retained by them, while in the case of work being done by the printing plant the profit is returned to the city.

For the last five years the printing plant has been conducted at an average annual profit of about \$22,000.

The commission is of opinion that the passage of this bill will enable the Superintendent of Printing to keep his labor force constantly employed throughout the year and accomplish a substantial saving for the city. It therefore recommends the bill to the favorable consideration of your committee.

Respectfully submitted,

THE FINANCE COMMISSION,

by GEORGE A. FLYNN,

Chairman.

COMMUNICATION TO THE MAYOR
in relation to
A CHANGE IN THE TAX LIMIT OF BOSTON.

BOSTON, March 13, 1919.

HON. ANDREW J. PETERS, *Mayor:*

SIR,— There are before the Committee on Metropolitan Affairs six bills dealing with a change in the tax limit of the City of Boston. These bills are as follows:

House Bill No. 124.— Abolishing the tax limit and allowing the City Council to fix the rate.

Senate Bill No. 232.— Abolishing the tax limit and allowing the City Council to fix the rate.

Senate Bill No. 233.— Abolishing the tax limit and allowing the City Council to fix the rate.

House Bill No. 637.— Abolishing the tax limit for the years 1919 to 1921, inclusive.

House Bill No. 492.— Increasing the tax limit of the city in the sum of \$3 for the year 1919.

Senate Bill No. 214.— Increasing the tax limit of the city in the sum of \$3.03 for the year 1919.

Three of the bills are on your petition and the other three are on petition of citizens of the city. The bills fall into two classes:

(a) Abolishing entirely the tax limit of the city.

(b) Increasing the tax limit for city departments (excluding schools) for the present year from \$6.52 to \$9.52 (House Bill No. 492) or \$9.55 (Senate Bill No. 214).

The commission has made a study of these bills and reports as follows:

1. BILLS ABOLISHING THE TAX LIMIT.

The principle underlying the first class of bills which would give to the City Council, subject to a veto by the

Mayor, power to raise each year as much money as was necessary to defray the expenses of the city, is based on the Municipal Indebtedness Act of 1913 (ch. 719). This act abolished the tax limit of all cities and towns in the Commonwealth and left local authorities complete independence in the matter of fixing the amount of their tax rates. The experiment is of such recent date that it is impossible to judge of its operation, but returns from five cities of the state show that immediately upon the passage of the act their tax rates were substantially advanced. Thus in the city of Worcester the tax rate rose from \$17.60 in 1913 to \$19.60 in 1914 and to \$21.20 in 1918. In Springfield it increased from \$15.80 in 1913 to \$18.50 for last year. In New Bedford it rose from \$20.20 to \$25.40 and in Lowell from \$19.40 to \$23.80 in the same years. In the years before the passage of the act the tax rate fluctuated both upward and downward, but after the check was removed the rate steadily increased.

The City of Boston was especially exempted from the operation of the act because it was felt that it would be an injustice to the large number of taxpayers doing business in Boston but residing outside the city and therefore having no voice in the conduct of its affairs, if some protection from a high tax rate were not afforded them.

The restriction has proven wise. There has been no demand upon the part of business interests and taxpayers that the restriction be removed.

A high tax rate has always been deemed to interfere seriously with the prosperity of the city and has in the past been the occasion of legislative action. In 1884 the tax rate was \$17, an increase of \$2.50 over the previous year, which created such concern that the Legislature of 1885 took up the question and fixed the tax limit at \$9, although the Mayor believed it was \$2 less than necessary and it was in fact \$3 less than that allowed other cities in the Commonwealth by the Legislature of that year.

The tax rate fell from \$17 in 1884 to \$12.80 in 1885.

In 1887 Mayor O'Brien summarized the salutary effects of the tax limit in these words, "With the checks of the city charter in the hands of a vigilant Mayor, that will enable him to prevent waste and extravagance, and the law limiting taxation, the rapid increase of municipal taxation that has become so alarming throughout the country has been stopped so far as Boston is concerned."

In 1900 Mayor Hart petitioned the Legislature for an increase of \$3 in the tax limit, making the tax limit in Boston the same as in the other cities of the state. The Legislature granted an increase of \$1.50, making the tax limit \$10.50, and so it has remained except for small increases granted from year to year, principally for the benefit of the schools and not for the city departments, until last year the Legislature granted an increase of \$3 for city purposes for one year.

The commission feels that the withdrawal at the present time of the safeguard of the tax limit would be a reversal to a discredited policy, and would in effect disregard the salutary experience of 33 years.

2. BILLS TO INCREASE THE TAX LIMIT.

(1.) *Provisions of the Bills.*

The commission understands that Your Honor seeks the passage of either bill, one of which provides for a \$3.03 increase for 1919 and the other a decreasing amount for the years 1919 to 1921, viz., \$3 for 1919, \$2 for 1920 and \$1 for 1921. The bills are temporary expedients designed to serve the present needs for more money. Emphasis should be laid upon the request for this year rather than the need of the other two years. Unlike the bill of Your Honor of last year none of the increase is especially assigned to street reconstruction but all will be used for general municipal purposes.

(2.) *An Increase of \$2 Only is Needed.*

The tax limit for the city departments, exclusive of schools, last year was \$9.52, of which \$1 was specifically

devoted for street improvement and the remainder was used for general departmental purposes. At the present time the tax limit for city departments has reverted to \$6.52 (the \$3 increase having been for only one year) and the bills now ask for virtually an increase of 50 per cent. over the present appropriating power of the city. The request of Your Honor for this increase is based upon the gross budget estimates presented by the city departments. These estimates amount to \$20,851,026 or \$5,733,544 more than is at present available from the \$6.52 limit. If the \$3 increase is granted this will reduce the deficit to \$1,176,727, and Your Honor has stated that you will reduce the budget estimates in the amount of this sum so as to bring the department requests within the money available from a \$9.52 limit. That Your Honor does not need so large an increase in the tax limit as \$3 will be shown below.

The financial situation of the city is different from that of last year. At the time of the 1918 appeal for the \$3 increase there was a loss in estimated income over the preceding year of \$412,000, and a loss of \$174,035 in appropriating power due to the decreased valuations on account of the income tax. In addition, there was no cash in the treasury on January 31, 1918. In the present year, however, the situation is a little improved. The estimated revenue of the city this year is \$354,000 over the estimated revenue of last year notwithstanding the loss of approximately \$1,000,000 in liquor license fees. This is due to the large sums paid during 1918 for soldiers' relief for which the city will receive reimbursement from the state in November of this year.

There has been a further reduction of \$147,734.52 in appropriating power under the tax limit of \$6.52 due to the decreased valuations on account of the income tax. This decrease is however more than offset by the increased estimated revenue of \$354,000, so that the net increase in the appropriating power this year over last year within the tax limit of \$6.52 is \$206,265.48.

The additional salary items in the budget for the present year which were not included last year are as follows:

Extra pay day (53 Saturdays) in 1919-20	\$183,000 00
New positions in 1919-20 budget	206,000 00
Increases in salaries in 1919-20 budget	*625,000 00
50 additional men on account of one day in three in Fire Department, not shown as new posi- tions in 1919-20	55,000 00
10 additional sergeants, 35 additional patrolmen in Police Department, on account of vacancies in quota allowed	59,000 00
Sliding scale in Police and Fire Departments, full year of 1918 increases instead of seven months; increases of \$200 to probationers in Fire Department in late 1918, etc.	113,000 00
	<hr/>
	<u>\$1,241,000 00</u>

Other items of increase and special items are as follows:

Increases in equipment, materials and supplies in 1919-20 estimates over 1918-19 expendi- tures	\$770,890 00
Appropriation for streets	1,000,000 00
Appropriation for granolithic sidewalks	50,000 00
Appropriation for bridge repairs	65,000 00
Appropriation for ferries, etc.	35,000 00
Appropriation for Roxbury Canal	202,000 00
Appropriation for conventions	15,000 00
Appropriation for Park and Recreation Depart- ment	81,400 00
	<hr/>
	<u>\$2,219,290 00</u>

The Finance Commission has not finished its study of the budget to determine to what extent the department estimates can be finally reduced, but is, at the present time, able to state that a sufficient amount may be deducted from the departments' estimates

* Includes \$100 increase to firemen and policemen from June 1.

without in any way affecting the efficiency of the service, so as to enable Your Honor to carry on the work of the city with a \$2 increase.

PROPOSED REDUCTIONS.

1. The first reduction can be made in the pay roll item by reducing the amounts requested in the sum of \$61,736, the annual normal slack, and \$206,000 for new positions as set forth in the following table:

The budget requests for salary roll items	\$11,531,327 00
The 1918-19 pay roll expenditures	9,779,591 00
<hr/>	
1919-20 increase	\$1,751,736 00
Allowance for abnormal slack which occurred last year	450,000 00
<hr/>	
Net increase	\$1,301,736 00
Budget increases	1,241,000 00
<hr/>	
Saving	\$61,736 00
Elimination of new positions	206,000 00
<hr/>	
Total net saving	<u><u>\$267,736 00</u></u>

This item of \$206,000 can well be eliminated and the departments forced to conduct their activities with their old quotas. The commission believes that an experiment of no new positions can well be tried this year.

2. The second saving may be had in eliminating the special items which have been requested this year.

The City Auditor's monthly exhibit shows that there is a very substantial balance of special appropriations of last year that will be available for expenditure this year, in addition to the appropriations for the current year, as follows:

Bridge repairs, one half contracted for	\$228,019 25
Ferryboats, all contracted for	27,280 67
Granolithic	7,089 09
<hr/>	
<i>Carried forward</i>	\$262,389 01

<i>Brought forward</i>	\$262,389 01
Fire Department, motor apparatus (vote, City Council, January 20, 1919)	106,984 10
Streets (1918, \$1 balance)	1,043,767 47
Street improvements	26,209 81
	<hr/>
	\$1,439,350 39

The Finance Commission believes that because of the balances in the above special appropriations that will be available for expenditure this year the following items should be deducted from the budget for this year:

Bridge repairs	\$65,000 00
Ferry repairs	35,000 00
Granolithic sidewalks (\$50,000 requested) cut off	25,000 00
Fire Department, motor apparatus	100,000 00
Streets	1,000,000 00
Park and Recreation Department	81,400 00
	<hr/>
	\$1,306,400 00

The Finance Commission believes that the unexpended balance of \$1,069,977.28 from the street appropriations of last year and the requested appropriation of the Paving Division for the current year of \$1,261,-856.77, viz., \$2,331,833.55, will provide more money than can be economically expended on the streets in a single year. The average expenditure of the city for street improvements for the four years preceding last year was \$1,309,250.88. The total expenditures last year for street improvements amounted to \$2,056,527.92.

3. A third saving will be accomplished if the following special requests are eliminated:

Roxbury Canal improvement	\$202,000 00
Conventions	15,000 00

4. In addition to these savings the Finance Commission has gone over the equipment, materials and sup-

plies items of the city budgets for 1919-20 and has by conservative reductions cut the requests in the sum of \$425,000.00.

Total deductions recommended \$2,216,136 00

These reductions will bring the needs of Your Honor almost within the \$2 increase recommended by the commission and with the introduction of business economies in the city departments by the elimination of superfluous employees, the abolition of overtime and the consolidation of departments this sum will be sufficient to carry the city departments through the year.

The commission recommends:

1. That the bills seeking the abolition of the tax limit be opposed.
2. That the tax limit for city departments be increased in the sum of \$2 for the present year.

Respectfully submitted,

THE FINANCE COMMISSION,

by GEORGE A. FLYNN,

Chairman.

COMMUNICATION TO THE SENATE

in relation to

THE BILL TO ESTABLISH THE TWO-PLATOON SYSTEM IN FIRE DEPARTMENTS OF CITIES AND TOWNS.

BOSTON, March 17, 1919.

To the Honorable the Senate:

GENTLEMEN,—Senate Bill No. 365, which provides for a two-platoon system in fire departments of cities and towns of the state has no legislative merit for the following reasons:

It involves a question that can be decided intelligently only by the representative officers of the various cities and towns who are elected by the voters to investigate and decide such questions for them. The referendum section does not remedy this defect.

It is impossible adequately to inform the voters of the matters involved in the proper decision of this question in such a way as to enable them to vote intelligently on it. It is a violation of the principles of representative government to put the burden of the decision of this question upon the voters on election day.

The history of this legislation is the best evidence that it is not a proper subject for legislation by the General Court.

A similar bill was vetoed by ex-Governor Bates in 1903. The reasons for that veto still stand.

The firemen have petitioned for this legislation in almost every year since 1903. It has been insistently urged but has never, since 1903, reached the Executive Chamber.

If the measure met with popular approval or possessed real merit, the General Court would have discovered it before now.

Municipalities possess ample power to adopt this system if they so desire, as is shown by the fact that it has been adopted by several. If these municipalities find it undesirable they can abandon it by a repeal of the ordinance which provided for its adoption. The two-platoon system has been tried and rejected by New York, Chicago and Spokane.

If this bill is enacted and accepted by the voters of any city or town and upon trial is found unworkable or too expensive, there is no remedy.

If it turns out to be a mistake it would be practically impossible to obtain a general repeal of the act or the exemption of any city or town from its provisions.

The firemen of the City of Boston have never requested the local authorities to adopt the two-platoon system.

The adoption of this system is a local and internal question of municipal government and should be decided by each municipality for itself. If the General Court is going to constitute itself a Board of Appeal for the decision of such questions, they will multiply so rapidly that the Legislature will have little time for the proper performance of its ordinary functions. It is at least not too much to ask that the petitioners first present their claims to their own municipalities.

Appointment to the Boston Fire Department has always been considered desirable by many citizens. Until recently, due to the draft and other changes arising out of the European War, there has always been a long waiting list for places in the Boston Fire Department.

In 1917 the City Council of the City of Boston adopted an ordinance giving the firemen one day off in three.

The adoption of this ordinance, which became effective February 1, 1918, made it necessary to appoint

142 additional men last year, and it is now found to be necessary to appoint fifty more men, and has increased the expenditures of the department at least \$200,000 a year.

At the time of the adoption of this ordinance the firemen upon appointment to the department served a probationary period of six months at a salary rate of \$900 per year. After passing the probationary period they continued at the same salary for six months and were then increased to \$1,000, with an annual increase of \$100 a year thereafter until the maximum of \$1,400 was reached.

Last fall Mayor Peters shortened the probationary period to three months and increased the salary upon permanent appointment to the department from \$900 to \$1,100. The firemen at the present time are asking for an increase of \$200, making the maximum pay \$1,600. The Mayor has promised them an increase of \$100.

It should be remembered that salary increases automatically increase pensions.

The firemen now have 121 days off each year under the one day off in three ordinance, which, plus the sixteen days' annual vacation, totals four and one half months off duty each year.

If injured in the course of their duty they receive full pay while absent from duty.

If absent because of sickness from natural causes they receive \$2.50 a day from the Mutual Relief Fund. This fund now amounts to \$250,000. Its principal source of income is from the proceeds of the annual ball of the department.

The members of the department are entitled to a pension equal to two thirds their final salary if they are permanently disabled in the performance of their duty; half final salary for mental or physical disability after fifteen years; half final salary after fifteen years of service at the discretion of the Fire Commissioner; half final salary at the age of fifty-five after twenty-five years of service.

The City of Boston has paid \$2,267,210.58 in pensions to members of the Fire Department from 1884, the date of the first pension act, to January 31, 1919. Individual pension payments in some cases have amounted to over \$20,000.

The appropriation requested this year for pensions in the Fire Department is \$210,000, an increase of \$45,000 over the amount requested last year.

Laborers, workmen and mechanics who become totally incapacitated for labor through injuries received in the course of their employment are entitled to receive from their employers, under the provisions of the Working-men's Compensation Act, the maximum sum of \$4,000, in weekly payments, not exceeding \$14.

The above facts are stated to refute the claim of the petitioners that the firemen are entitled to this legislation as a humanitarian measure.

It was estimated on the basis of the 1917 rolls before the enactment of the one day off in three ordinance that the two-platoon system would increase the department pay rolls over \$500,000 in the first year and that in five years the increase, due to the annual salary increases, would amount to \$750,000.

This bill by section 4 specifically retains to the firemen all their present privileges and emoluments, except the one day off in three ordinance, which is repealed by sec. 5.

It provides that the tours of duty shall alternate every three days. This means for Boston that each year its firemen will be on day duty 175 days, on night duty 175 days, and will be off duty sixteen days on vacation. The only night duty performed by the firemen on the night tours of duty, unless actually engaged in fire fighting, is a two-hour watch on the floor for each fireman.

If this bill becomes effective the next step will be a demand to put the firemen on an eight-hour basis and thus provide three shifts instead of two.

It is respectfully submitted that the question involved in this legislation should be decided by each municipality as a matter of local government and not

on a referendum; that the Boston firemen, in view of the salaries which they receive, their time off and the pensions to which they are entitled, are adequately paid, and that the bill if passed and accepted by the voters will subject the taxpayers of the City of Boston to a large and unwarranted expense which they can ill afford.

The Finance Commission respectfully requests the Legislature to reject this measure.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE SENATE

*in relation to*THE BILL PROVIDING FOR THE BORROWING
OF \$5,000,000 OUTSIDE THE CITY'S DEBT
LIMIT TO IMPROVE CONDITIONS IN THE
NORTH END.

BOSTON, March 24, 1919.

To the Honorable the Senate:

GENTLEMEN,—The Finance Commission calls your attention to the need of rejecting Senate Bill No. 373, which provides for the borrowing of \$5,000,000 outside the debt limit by the City of Boston for the purpose of improving conditions in the North End of the city. The bill has been reported upon the petition of two members of the Planning Board of Boston and contemplates the taking of thirty-two parcels of realty under the excess condemnation act, for the purpose of building a new highway from the North Station to Atlantic avenue, and for the taking of an indefinite number of parcels of real estate for parks, open areas and playgrounds. One of the main objects of the bill is to improve the housing conditions in this section of the city. The act is to take effect upon acceptance by the city government of Boston and the improvements may be made in sections or as a whole as the city officials deem expedient.

The original bill called for an expenditure of \$3,000,-000, which was increased to \$5,000,000 by the committee. The bill is objectionable for the following reasons:

It violates the sound and well-established principle that the City of Boston should not borrow money outside the debt limit except for rapid transit purposes. This principle was adopted by the Legislature of 1909 which, by ch. 315 of the Acts of that year, rescinded all authority theretofore granted to issue loans outside the debt limit except for rapid transit purposes, because the

privilege had been invoked so frequently that the credit of the city was becoming imperiled.

The Legislature has on only two occasions since the passage of the 1909 act authorized the city to borrow outside the debt limit. In 1911 it authorized a loan of \$900,000 for the widening of Pleasant street, and in 1913 it authorized a loan of \$1,500,000 for widening Avery, Mason and Washington streets.

The acts authorizing these loans were the result of several years' agitation on the part of business interests of the city and only after definite and specific plans had been presented to the Legislature.

The traffic highway proposed by this legislation, which it is estimated by the proponents of the bill will cost \$3,631,590, was not advocated or requested at the hearings before the committee by any real estate, business or teaming interests.

The Board of Street Commissioners of the City of Boston is of the opinion that the proposed highway will not solve the traffic difficulties in the North End and market district and does not approve the construction of the highway as proposed.

The present act does not call for one improvement but for many improvements. It provides, according to the statements made by its proponents before the Committee on Municipal Finance, for the elimination of congested areas at the North End, the layout and construction of a traffic highway, the establishment of many open areas to provide light and air to surrounding properties, and the establishment of several playgrounds and some small parks. It authorizes the city to acquire more land than is necessary to accomplish the desired purpose and to sell what is not needed, with or without suitable restrictions.

This is an extreme power which the Legislature should not grant to any municipality unless it is positive that such authority is necessary to accomplish the desired object and that it will result beneficially to the inhabitants of the city.

The act also provides that it may be accepted as a whole or in part from time to time.

The commission submits that no legislation should be passed for so composite a purpose. There is no need of appealing to the Legislature for authority to borrow money outside the debt limit for new playgrounds and parks. The city now has an extensive system of playgrounds, located in different sections of the city, constructed out of the proceeds of loans issued within the debt limit, of which the Morton Street Playground in the heart of the North End district is an example.

The city has also laid out and constructed several important highways from the proceeds of loans issued within the debt limit.

The commission submits that it is not sound municipal finance for the Legislature even to authorize the expenditure of money outside the debt limit for the purpose of improving housing conditions in the North End under the guise of making highway improvements and creating parks and playgrounds. The city at the beginning of the present fiscal year had authority to borrow \$3,950,785.62 within the debt limit, which would seem adequate to provide funds for any portion of the improvements contemplated by this legislation that are essential to be started this year.

The commission believes that borrowing outside the debt limit is a discredited policy which should not be revived and that it should be authorized only for specific and definite improvements that are affirmatively proved to be immediately essential and impossible of accomplishment within the debt limit.

The present bill does not meet these requirements.

The Finance Commission therefore respectfully requests your honorable body to reject this measure.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FYLN,
Chairman.

COMMUNICATION TO THE MAYOR
in relation to
THE AWARD OF CONTRACTS FOR AN AMOUNT
LESS THAN \$1,000.

BOSTON, March 24, 1919.

HON. ANDREW J. PETERS, *Mayor*:

SIR—The Finance Commission's attention has been called on several occasions during the past year to what it believes to be an unwise exercise of the discretionary powers allowed heads of departments to award contracts under the sum of \$1,000 without the permission in writing of Your Honor to make such contracts or your signature to render the contracts valid.

A particularly flagrant case was recently called to the attention of the Finance Commission, where a former head of a department from January to November, inclusive, awarded to a single firm of contractors, without competition, more than twenty-four contracts of less than \$1,000 in amount, eleven of these contracts being for amounts between \$800 and \$1,000, and in three cases four separate contracts being let within short periods of time for work in a single building.

The Finance Commission has given consideration to the matters involved and believes it is advisable to impose restrictions upon the award of such contracts, at least to the extent of making the features of the contracts public. The Finance Commission suggests that Your Honor issue an executive order, substantially as follows:

To Heads of Departments:

You are hereby directed, until otherwise ordered, to forward for publication in the *City Record*, in addition to the information relating to contracts in excess of \$1,000, information regard-

ing all contracts made by you for amounts less than \$1,000 but in excess of \$100, including the date of the contract, the name of the contractor, the work to be done or materials to be furnished, and the estimated amount of the contract. This information is to be furnished in time for publication in the issue of the *City Record* next succeeding the date of the execution of the contract.

In this connection the attention of Your Honor is called to the fact that in the past certain heads of departments have been negligent in complying with the provisions of sec. 29 of the city charter that requires certain information regarding contracts involving \$1,000 or more to be published in the *City Record*.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE MAYOR
in relation to
THE ACCEPTANCE OF THE ACT TO INCREASE
THE PENSION OF CITY LABORERS.

BOSTON, April 2, 1919.

HON. ANDREW J. PETERS, *Mayor:*

SIR,— The commission desires to call the attention of Your Honor to the additional expense to the taxpayers incident to the acceptance by Your Honor of ch. 55 of the Special Acts of 1919:

Any laborer employed by the city of Boston who has reached the age of sixty years and who has been in the service of the city for a period of not less than twenty-five years, and who is physically incapacitated, shall, at his request and with the approval of the retirement board above provided for, be retired from service, and shall receive for the remainder of his life an annual pension equal to one half of the compensation to which he would have been entitled for full employment during the last year of his service for the city. It shall be the duty of said board so to retire any laborer in the service of the city who has reached the age of seventy years and has served the city for a period of not less than twenty-five years; *provided, however,* that said retirement board may, upon the request of the mayor and city council, retire any laborer employed by said city who has been in the service of the city continuously for a period of not less than fifteen years, and who, owing to injury, physical incompetency, old age or infirmity, may be incapacitated from further performance or discharge of his duty or labor.

The term laborer, as used in this act, is defined in the legislation of which the above is an amendment, to include skilled laborers, mechanics, craftsmen and janitors, and all women performing duties similar and attached to positions in the labor service.

The effect of this legislation is to increase the present maximum pension of \$360 a year to one-half pay at time of retirement.

The city laborers are at the present time receiving \$3 a day and the mechanics and craftsmen \$4 a day.

The commission understands that it is your present intention to grant on June 1, 1919, an increase of 50 cents a day to these employees, making the city laborers' pay \$3.50 a day and that of mechanics and craftsmen \$4.50 a day.

Under the proposed act these employees would be entitled to the following pensions:

Laborers, \$3 a day = \$976 a year, one half = \$468.

Mechanics, etc., \$4 a day = \$1,248 a year, one half = \$624.

After June 1, 1919.

Laborers, \$3.50 a day = \$1,092 a year, one half = \$546.

Mechanics, etc., \$4.50 a day = \$1,404 a year, one half = \$702.

The American Experience Mortality table fixes the expectation of life at the age of 60 to be 14.10 years, and at the age of 70 to be 8.48 years. The cost to the tax payers of these pensions and the value thereof to the laborers can be determined by multiplying the amount of the annual pension by the expectation of life at the time of retirement, and is shown by the following tables:

RETIREMENT AT AGE OF 60.

\$360 x 14.10	.	.	.	.	.	.	\$5,076 00
468 x 14.10	.	.	.	.	.	.	6,598 80
546 x 14.10	.	.	.	.	.	.	7,698 60
624 x 14.10	.	.	.	.	.	.	8,798 40
702 x 14.10	.	.	.	.	.	.	9,898 20

RETIREMENT AT AGE OF 70.

\$360 x 8.48	.	.	.	.	.	.	\$3,052 80
468 x 8.48	.	.	.	.	.	.	3,968 84
546 x 8.48	.	.	.	.	.	.	4,630 08
624 x 8.48	.	.	.	.	.	.	5,291 52
702 x 8.48	.	.	.	.	.	.	5,952 96

The effect of the proposed act is to increase the laborers' pension from 30 per cent. to 95 per cent.

No computation can be made of the cost to the city or the value to pensioners in those cases where, under the provisions of this act, pensions are granted upon the request of the Mayor and City Council to laborers who have been in the service of the city for a period not less than fifteen years and who, owing to injury, physical incompetence, old age or infirmity may be incapacitated from further performance or discharge of duty or labor.

It is impossible to compute the total additional cost to the city by the increase in pensions proposed by this act because it cannot be determined how many city laborers will eventually receive pensions and how many will be retired at the age of sixty, how many at the age of seventy, how many after fifteen years of service, and at what salary.

The laborers were first granted a pension in 1911. On September 1, 1913, there were 120 laborers receiving pensions, at an annual cost to the city of \$43,200. There are now 276 laborers receiving pensions and the City Auditor estimates that the cost to the city this year under the \$360 pension will be \$100,000.

There are approximately 3,000 city employees within the class entitled to the benefit of laborers' pensions. It is therefore apparent that these pensions will increase very rapidly in the future. The increase in numbers from 120 to 276, and in amount from \$43,200 to \$100,000, in five years, is an indication of the future pension liability of the city.

As the Legislature has this year passed several special pension acts for the benefit of individual city employees, authorizing the city to pay pensions, usually one half of salary at time of retirement, which may come before Your Honor for acceptance, the commission desires to call your attention to the great increase in pension expenditure which began in 1878, with the expenditure for that year of \$8,109, and last year amounted to \$663,362.30; the total pension expenditures for the entire

period being \$7,816,599.13. The greatest increase has come in the last ten years, as shown by the following table:

YEAR.	Police Charitable Fund.	Police Department.	Fire Department.	School Department.	Miscellaneous.	Total.
1908.....	\$7,519 00	\$131,800 00	\$95,759 00	\$1,678 00	\$1,478 00	\$238,235 00
1918.....	7,815 00	160,393 00	187,915 00	118,221 00	189,016 00	663,362 00

Under the heading "Miscellaneous" are included pensions to judges, laborers, veterans, and the beneficiaries of special pension acts.

The annual pension expenditure, based on the present wage scale, has not yet reached the maximum, as is shown by the fact that the present budget estimate for pensions in the Fire Department is \$35,000 more than last year.

The proposed increase of \$100 to firemen and policemen will increase their pensions, as they are entitled to receive pensions varying from one-third to three-fourths of final pay at time of retirement, depending upon the reason for retirement.

In view of these very heavy expenditures for pensions and their inevitable increase under the present pension acts, the commission recommends:

1. That ch. 55 of the Special Acts of 1919 be not accepted.
2. That all special pension acts be vetoed.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE MAYOR
transmitting
THE REPORT OF CALVIN DERRICK ON CON-
DITIONS AT THE CHARLES STREET JAIL.

BOSTON, April 21, 1919.

HON. ANDREW J. PETERS, *Mayor:*

SIR—The commission transmits herewith* the report of Calvin Derrick, Esq., who was employed by the commission to examine the conditions at the Charles Street Jail and report upon the need for changes therein, and as to the advisability of the proposed alterations.

The commission desires to direct Your Honor's attention specifically to Mr. Derrick's statement that in his opinion the amount now appropriated for these improvements, viz., \$132,500, will not be sufficient, but that he is confident that the work can be completed for \$150,000.

In view of the report the commission is of the opinion that the proposed changes are advisable and that a bond issue to pay the cost thereof would be justified.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

* On account of the length of Mr. Derrick's report it has not been printed.

COMMUNICATION TO THE MAYOR
in relation to
SALARIES TO BE PAID PROBATION OFFICERS
IN THE BOSTON MUNICIPAL COURT.

BOSTON, May 7, 1919.

HON. ANDREW J. PETERS, *Mayor*:

SIR,—The commission has investigated your request for information on the recent action of the Boston Municipal Court justices in establishing new rates for the probation officers attached to that court and submits the following report:

Up to 1918 the male and female assistant probation officers were paid a maximum of \$2,000 and \$1,700,* respectively. Entrance salary for the men was \$2,000; for the women \$1,200. The men received no further advancement. In the case of the women the practice was to raise them to \$1,500 after one year's service. In 1914 the judges raised the salaries of two female probation officers from \$1,200 to \$1,500, but Mayor Curley vetoed the order. Since that time the old rule of appointing female assistant probation officers at \$1,200 for the first year has been abandoned, and all women appointed as probation officers are employed at the uniform rate of \$1,500.

In December, 1917, the judges granted an increase of \$200 to the male probation officers, raising their salaries from \$2,000 to \$2,200, and also gave to the women probation officers an increase of \$300, raising their salaries from \$1,500 to \$1,800. These increases took effect February 1, 1918.

On July 1, 1918, all these officers received a further increase of 10 per cent. of their July 1, 1917, salary by ch.

* Two received the maximum; the rest received \$1,500.

260 of the General Acts of 1918, which applied to all county employees. These two increases netted the men \$400 each (\$2,000 to \$2,400); the women \$450 each (\$1,500 to \$1,950). The proposed rate for men is \$2,500; for women, \$2,100.

There are two other probation officers who act as first and second assistants to the chief officer. One is a man, the other a woman, and each has charge and supervision over the men and women assistant probation officers. They receive a slightly larger salary than the regular assistant probation officers. The first assistant probation officer (man) is paid \$2,620, having received last year \$420 in two increases (February 1, 1918, \$200; and July 1, 1918, \$220); the second assistant probation officer (woman) receives \$2,170, having been raised last year from \$1,700 in two increases totaling \$470 (February 1, 1918, \$300; July 1, 1918, \$170). There are twenty-eight assistant probation officers employed at the present time.

The chief probation officer receives a salary of \$4,000 and did not participate in the increases last year. His increases in salary since 1912 have been as follows:

1912.	1913.	1914.	1915.	1916.	1917.	1918.	Proposed Salary, 1919.
\$2,200.00	\$3,000.00	\$3,000.00	\$3,500.00	\$3,500.00	\$4,000.00	\$4,000.00	\$4,500.00

He has charge of fifty employees and he is responsible for the administration of the probation system in his court. Mr. Catheron, the chief probation officer of the Superior Court, has thirteen employees under him and receives \$3,500 a year.

The commission is informed that the initiative for again raising the salaries of these employees emanated from the judges and was due to an understanding that the Superior Court justices had raised the compensation of their probation officers to approximately the amounts granted in the Municipal Court. The commission finds,

however, that no increases have been asked for in the budget for the probation service of the Superior Court, and no request for increases has as yet been presented by the chief probation officer (Mr. Catheron), although there is a possibility that later the judges may consider the question.

The Supervisor of Administration, in his report on county salary standardization, excluded consideration of the probation officers' salaries because the quantity and quality of work were so varied that it was impossible to establish a uniform rate for all counties. Consequently the fixing of salaries was left to the local county officers.

It has been the general policy of the Finance Commission in its present budget reports to eliminate all proposed increases to employees whose present salary is over \$1,800, and to recommend no further increases for county employees who received the 10 per cent. advancement last year.

The commission believes that Your Honor should refuse to approve the new rates.

Respectfully submitted,

THE FINANCE COMMISSION,

by GEORGE A. FLYNN,

Chairman.

COMMUNICATION TO THE MAYOR
in relation to
**THE PURCHASE OF BITUMINOUS
ROAD BINDERS.**

BOSTON, May 8, 1919.

HON. ANDREW J. PETERS, *Mayor:*

SIR,—The Finance Commission calls Your Honor's attention to the situation which has developed in connection with securing supplies of various types of bituminous road materials for use on the streets of Boston during the current year.

The attention of the commission was recently called to two advertisements appearing in the *City Record* of April 26, the first asking for bids for 100,000 gallons of refined tar, 50,000 gallons of tar patching material and 50,000 gallons of surfacing material; the second advertisement being for 100,000 gallons of Bermudez road binder, a natural asphalt.

The commission received information that, as regards the greater number of the items, the materials could be secured only from representatives of a single manufacturer, and that for the one or possibly two items where there might be competition, not more than three bids were possible; also that the specifications excluded from competition manufacturers of asphaltic products derived from the distillation of petroleum which are at least equal in quality to the materials asked for and are used for the same purpose.

The commission has questioned several responsible representatives of the Public Works Department regarding the reason for the form of advertisement and the exclusion from competition of manufacturers of residual asphalts. The following information was secured:

The Superintendent of Supplies advertised for these bids on his own initiative, without consultation with

any officials of the Public Works Department as regards the specifications or the quantities of materials required.

The 100,000 gallons of refined tar was to be used under exactly the same conditions as the 100,000 gallons of Bermudez road binder, although being considered an inferior material, it was to be used on streets of less importance than those on which Bermudez was to be used.

No competition for certain of the items was possible, and for the remainder only a very limited competition.

It was the intention of the Superintendent of Supplies to call for bids for residual asphalt at a later date. The superintendent has since confirmed this statement by inserting in the *City Record* of May 3 an advertisement for 100,000 gallons of residual asphalt, bids to be opened at 12 m., Friday, May 9.

After considering the information obtained, the commission believes that the course followed in securing these bids will not result to the greatest advantage of the city, either as regards the prices submitted or the materials obtained.

A similar situation in the years 1915 and 1916 resulted in an extended discussion regarding the merits of different types of bituminous road binder. At that time criticism by the commission and certain members of the City Council of the policy being followed by the administration then in power resulted in the appointment of a committee of engineers to consider the matter and to make recommendations as regards the purchase of bituminous road materials.

This report may be found in the *City Record* of 1916, page 659. The following extract expresses the opinion of the committee regarding the comparative merits of natural asphalts and residual asphalts.

Many good pavements have, however, been constructed with residual asphalt, and this leads to the conclusion that, with proper specifications, rigidly enforced, and with adequate inspection, proper results may be obtained with the use of residual asphalt.

Although the committee surrounded its opinions, as regards the merits of residual asphalt, with a number of qualifications, these qualifications are only such as would apply with equal force to natural asphalts. The report resulted in the greater use, for a time, of residual asphalt as a road binding material.

Certain experiments have been made under the direction of the Massachusetts Highway Commission at different localities on state highways to determine the comparative merits of various bituminous materials when used as road binders. These experiments confirm the conclusions of this committee. The most convincing demonstration is on the road along the Merrimac river, between Lawrence and Lowell. This road is almost level in grade, well drained, with practically no side streets, so that the conditions for foundations are ideal and traffic for the entire length is of necessity uniform. The road has been in use for seven seasons.

Materials supplied by a number of manufacturers have been used on alternate sections of this road, including residual asphalts, Bermudez — a natural asphalt — and coal tar products. All of the asphalts are in excellent condition. The commission is informed, however, that all of the coal tar products have required repairs; some at least requiring repairs the first year. A section composed of one of the coal tar materials which it is proposed by the city to buy without competition shows signs of frequent repairs in former years and is at the present time practically worn out.

The experiment appears to demonstrate conclusively that, in this climate at least, all of the asphalts used are superior in wearing qualities to the coal tar products. Comparing the asphaltic products, it is a conservative statement to say that the Bermudez asphalt, which it is now proposed that the city should buy at a comparatively high price, without competition, is not superior to the residual asphalts, which are much lower in price.

The commission takes this opportunity of recommending that Your Honor and the Commissioner of Public

Works make a detailed examination of this road before any contracts are awarded, in order to form your own opinions of the correctness of the above conclusions.

The commission has had an examination made of the specifications under which bids have been advertised for and submits the following conclusions:

The specifications for the coal tar products and the Bermudez asphalt call for proprietary articles upon which there can be no competition.

The commission believes that the specifications for residual asphalts are not such as to secure materials which will give the best results in street work. It may also be that the apparent preference of some of the officials of the Public Works Department for Bermudez asphalt over the residual asphalts is due to the fact that in the past their specifications have not been such as to secure residual asphalt of quality suitable to obtain the best results.

The specifications now being used appear to have been prepared several years ago, and a comparison with the latest approved specifications shows that they should be revised. For example, the commission has at hand Specification A, prepared by the United States Department of Public Roads, for asphalt to be used as a road binder in the northern states. The experts of the Public Roads office recommend these specifications and in some cases make their use by various state departments a requisite for obtaining financial assistance from the National Government in the construction of state highways. Therefore it may be confidently stated that these specifications represent the most advanced practice in the country.

Comparing the city specifications with the United States specifications:

Section 3 of the city specifications calls for a specific gravity of not less than .98 nor higher than 1.02 at 77 degrees Fahrenheit. The Government specifications call for a specific gravity of not less than 1.00. Many of the New England States' specifications require a specific gravity still higher, and it is

understood that the United States does not object to the use of materials secured under such state specifications.

Section 4 of the city specifications calls for a penetration not less than 15 nor more than 20 millimeters, when tested in a standard manner. The unit of penetration is one tenth of a millimeter. Therefore this requirement as ordinarily written would be "not less than 150 nor more than 200." The Government specifications require a penetration of 120 to 150, showing that a much harder material is contemplated. Some state specifications require still harder material, with a penetration varying from 90 to 100.

Section 5 of the city specifications, the test for volatilization, allows a loss in 7 hours at 325 degrees Fahrenheit of 8 per cent. The Government specifications allow a loss in 5 hours at 325 degrees Fahrenheit of not more than 1 per cent. This is apparently an error in the city specifications and probably is intended as .8 of 1 per cent. The city specifications also require a container in which to heat the asphalt of different dimensions than the United States standard, and this fact also adds uncertainty to the results for purposes of comparison. Other comparatively unimportant differences exist.

On the whole, the city under the specifications will secure material much softer than the best modern practice indicates as being most suitable for bituminous macadam streets.

In consideration of the facts herein outlined, the commission is of the opinion:

That there has been an inexcusable lack of consultation and co-operation between the officials of the Supply Department and those of the Public Works Department.

That the method followed of advertising at different times for different materials to be used for the same purpose has not secured the advantage of competition to the degree that it would have secured had all of the materials been admitted in the same competition.

That the experiments of the Highway Commission have demonstrated clearly that asphalts are superior as road binders to coal tar products.

That neither the residual asphalts nor the natural

asphalts possess any superiority over each other for road building purposes, if materials are secured according to the provisions of properly drawn specifications and used under proper supervision and with skillful workmanship.

That there are no advantages from the use of natural asphalts commensurate with the excessive cost.

The Finance Commission recommends:

1. That all of the bids already received be rejected.
2. That the advertisements in the *City Record* of May 3, 1919, be canceled.
3. That new specifications, incorporating the latest ideas as regards the qualities of bituminous road binders, be prepared.
4. That future advertisements admit the residual asphalts in equal competition with the natural asphalts.
5. That serious consideration be given by the officials of the Public Works Department as to whether it would not be the part of economy to dispense entirely with the use of coal tar products as road binders and to use asphaltic products exclusively, notwithstanding their somewhat higher price, except for patching work for which there appears to be no satisfactory asphalt product.
6. That in future the Superintendent of Supplies consult with the heads of departments as regards specifications, type of materials and quantities before any bids are requested.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE MAYOR AND CITY COUNCIL
in relation to

THE ACCEPTANCE OF THE SPECIAL ACT TO
PROVIDE PENSIONS FOR TIMOTHY R.
SULLIVAN AND THE WIDOW OF THOMAS
H. LYNCH.

BOSTON, May 10, 1919.

To the Honorable the Mayor and City Council:

GENTLEMEN,—The City Council has before it for acceptance ch. 46 of the Special Acts of 1919, providing for a pension to Timothy R. Sullivan, a janitor employed at the courthouse, and ch. 141 of the Special Acts of 1919, authorizing the payment of an annuity not exceeding \$900 to the widow of Thomas H. Lynch.

The Finance Commission has investigated the facts on which these acts are based and desires to report as follows:

1. Timothy R. Sullivan entered the employ of Suffolk County on February 24, 1913, as a janitor at a salary of \$15 per week and has continued in that capacity, his salary having recently been increased to \$21 per week.

The custodian of the courthouse states that Mr. Sullivan was at work in the courthouse, near the scene of the bomb explosion which occurred on March 16, 1917, and remained at home the following week because he claimed to have received a mental shock. He never made any claim of injury until after the legislative act authorizing the payment of a pension was filed, and has been constantly at work and has always performed and is now performing his duties to the satisfaction of the custodian.

Mr. Sullivan is now fifty-nine years of age and under the American Experience Mortality Tables his expectation of life is 14.74 years. If the act is accepted he will

be entitled to receive \$546 annually, which on the basis of his expectation of life will be equivalent to paying him \$8,048.04.

The commission is of opinion that this legislation is without merit and should be rejected.

2. The second act, ch. 141 of the Special Acts of 1919, provides for an annuity not exceeding \$900 to the widow of Thomas H. Lynch, an inspector in the Police Department of the city, who died of pneumonia on February 2, 1919, following an attack of influenza.

The city has occasionally granted an annuity of \$300 to the widow and minor children of policemen and firemen who died from injuries received in the performance of duty, under the provisions of a general act passed many years ago, which has this year been amended by increasing the amount of the annuity to \$600, but this policy has never heretofore been extended to cover cases of death arising from illness contracted while on active duty.

The commission believes that an extension of the bounty of the city to cover deaths from illness would necessarily lead to the payment of an annuity to the widow and children of every policeman and fireman whose death is caused by illness contracted during active service, and would be unwarranted.

The commission therefore respectfully recommends that this act be rejected.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE COMMITTEE ON EDUCATION
in relation to

THE BILL PROVIDING FOR THE BORROWING
OF \$750,000 FOR ERECTING A NEW PUBLIC
LATIN SCHOOL.

BOSTON, May 10, 1919.

To the Honorable the Committee on Education:

GENTLEMEN,—The Finance Commission has considered House Bill 1647, being the petition of the Boston School Committee for authority to borrow the sum of \$750,000 for the purpose of erecting and furnishing a new public Latin School. The commission submits the following report thereon:

The policy of the City of Boston in furnishing new school accommodations has been based for the last three years upon a strictly pay-as-you-go policy. Appropriations for new school locations and buildings have been provided out of the tax levy, as it was recognized that new school accommodations were an annually recurrent need and that borrowing money for them had resolved itself into borrowing money for current expenses. This pay-as-you-go policy was adopted in 1916, and the old practice of financing these accommodations partly from taxes and partly from loans was abandoned.

In 1916, ch. 267, the School Committee was authorized to increase its appropriating power for new school accommodations from 40 cents to 60 cents upon each \$1,000 of the city's valuation, and was prohibited from borrowing money for school accommodations. It was expected that the appropriations so authorized would afford sufficient money to construct all new school buildings and that the annual increase in the valuation of the city would provide the necessary annual increase

in the amount required to take care of the additional school accommodations due to the natural growth of the city.

The need for new elementary schools is so great at the present time that a new Latin School building cannot be constructed out of the appropriations now authorized without abandoning the construction of some new elementary schools that are required for the proper care of part of the pupils.

No division of opinion exists as to the need for the new Latin School. The present English High School, which adjoins the present Latin School building, has been over-crowded for years. The city has rented rooms from the Franklin Union since 1909, at a cost last year of \$5,916, in order to accommodate the overflow pupils attending the English High School. When the new Latin School is completed the English High School will occupy the old Latin School quarters.

The Finance Commission has always reported against the borrowing of money for permanent improvements that could be financed out of the tax levy, especially when annually recurrent. In the pending case the commission does not oppose the petition if the loan is required to be issued within the debt limit, because it believes that the construction of new elementary schools should not be abandoned, that the need for a new Latin School is not questioned and will not recur for many years, and that the present tax limit is now so high that it should not be further increased by the addition of the amount necessary to provide sufficient funds to construct this improvement out of the tax levy.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE MAYOR

*in relation to*THE BILLS OF J. J. HURLEY & CO. AND THE
PENNSYLVANIA TILE AND CONSTRUC-
TION COMPANY FOR WORK DONE FOR
THE INFIRMARY DEPARTMENT.

BOSTON, May 14, 1919.

HON. ANDREW J. PETERS, *Mayor*:

SIR,—The Finance Commission respectfully submits herewith a report on the bill of J. J. Hurley & Co. for steamfitting and on the bill of the Pennsylvania Tile and Construction Company for relining boiler furnaces for the Infirmary Department.

The commission finds the same difficulty in making definite statements regarding these bills as for several other bills contracted by this department, regarding which it has already made reports. Exact information of conditions cannot be obtained; no preliminary estimates or statements seem to have been secured, and no written records seem to exist at the present time as regards the amount of work done or quality of materials furnished.

It appears that the superintendent had authority to incur certain expenditures, as indicated in the letter of Frank L. Brier, chairman *pro tempore*, of November 23, 1918, the cost being limited only by the amount that the department could legally expend without the permission of the Mayor to dispense with advertising.

The commission finds that reports on these bills have already been rendered by Mr. Rudolph J. Thanisch, engineer in the Public Works Department, and also by officials of the Schoolhouse Department. The matters have also been investigated by the consulting engineer of the Finance Commission.

There appears to be little to criticise regarding the prices charged by J. J. Hurley & Co. for materials. The engineer at Long Island states that the item for 20 feet of 4-inch extra heavy pipe, amounting to \$30, should have been included in the work under a previous contract of J. J. Hurley & Co. and that it should be eliminated from the present bill. He also states that under the item for 140 feet of 2-inch extra heavy pipe only 70 feet of extra heavy pipe was used, the remainder being of ordinary strength. A reduction therefore should be made from this item.

The commission finds it impossible to determine now the conditions under which the work was performed and is therefore unable to state exactly what a fair labor cost should have been. It is, however, apparent that the labor charge is greatly in excess of what the work done would justify.

It is also impossible to submit definite figures regarding the bill of the Pennsylvania Tile and Construction Company for relining the fire boxes of three of the boilers at Long Island.

The commission is unable to secure definite information regarding the brand of bricks used. A sample in the possession of the Infirmary Department indicates that the bricks were the so-called "Furnace" brand. The engineer at Long Island thinks that the bricks were the "Phoenix" brand. In either case the price charged, \$80 per M., appears to be about \$10 per M. more than the market price at the time the bricks were used.

The work was done by a foreman mason at wages of $93\frac{3}{4}$ cents per hour. The wages of ordinary bricklayers at the time appear to have been $87\frac{1}{2}$ cents per hour. This mason had two tenders at \$4 a day. There is also a charge for 40 hours' time of a superintendent at \$1 per hour. Under the conditions a superintendent was unnecessary. The total time charged for the mason was 214 hours, indicating that slightly over 27 days were consumed in repairing these furnaces, a total labor cost — including profit — of \$541.41, or \$180.47 for each furnace.

It appears that 2,600 bricks were purchased and 1,600 bricks used, which would indicate a labor cost of 34 cents for laying each brick, including the cutting out of the old lining.

The consulting engineer of the commission states in his report on the matter that "certainly not more than three days for one mason should be consumed in the lining of each furnace, and allowing for all possible contingencies the superintendent would not have been warranted in approving a bill that called for more than three days per furnace for one mason and his tenders." In confirmation of this estimate the commission has secured figures from various sources of cost for relining furnaces of approximately the same size. From one state department it finds that the labor cost for two boilers, including cutting out old brickwork and relining, including the bridge walls, to be \$25.50, a labor cost of \$12.25 per furnace. This department uses its own labor force, which is employed on other work when not engaged in relining furnaces. The above job included the relaying of the facing of the bridge wall, which was apparently not included in the Long Island work.

From one of the large corporations in Boston the commission has secured the figures for relining two furnaces of slightly larger size than those at Long Island, including removing old brickwork and facing the bridge walls:

One mason and one tender, $5\frac{1}{2}$ days at \$12.80	\$70 40
Total per furnace	\$35 20

This work was done under a cost plus a percentage basis, and the workmen were paid a higher price than in the case of the state department, which probably accounts for its larger cost.

In comparison with these figures the commission finds a labor cost of \$180.47 per furnace at the Long Island institution excessive. In addition, the workmen were boarded and lodged at the Long Island institution during the period of the work without any charge being made therefor.

The Finance Commission believes that this is another instance of the inefficient administration of the Long Island institution to which the commission has on previous occasions directed Your Honor's attention.

The commission recommends:

1. That work of this character should not be undertaken until specifications are prepared and preliminary estimates of cost are obtained.
2. That payment of these bills be withheld unless a substantial reduction is made.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE MAYOR
in relation to
THE PROPOSED PURCHASE OF MOTOR
FIRE APPARATUS.

BOSTON, May 16, 1919.

HON. ANDREW J. PETERS, *Mayor*:

SIR,— In response to your request of May 6 for the opinion of the Finance Commission relative to the proposed purchase of motor apparatus from the American-La France Fire Engine Company, the commission begs to state that it has requested its consulting engineer to investigate this matter and submits herewith his report.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

BOSTON, May 9, 1919.

To the Finance Commission:

GENTLEMEN,— In the matter of the appended letter of His Honor the Mayor, requesting that an examination be made of data relating to the purchase of fire apparatus in the office of the Fire Commissioner, I respectfully report as follows:

As a member of the committee appointed by the Mayor to consider the merits of the products of various manufacturers of fire apparatus, the writer gave long consideration to the possibility of devising some method whereby competitive bids might be received. The same conclusions were arrived at as in the investigation of 1912 that no satisfactory basis could be devised upon which competitive bids for fire apparatus might be secured.

It was also found that on account of the custom of the manufacturers of the best fire apparatus of adhering very closely to their list prices, the matter of competition was not as important as for many other articles purchased by the city.

In connection with the Mayor's requests I have had an extended conference with Supervisor Stewart of the Fire Department. I have examined the form of contracts and specifications which it is proposed to use, have discussed with him in detail the advisability of the changes which it is proposed to make from the standard apparatus as manufactured by the American-La France Company, and have discussed and estimated the cost of these changes as regards additional cost to the city and rebates to the city from the company. I have examined Mr. Stewart's data, showing costs of apparatus in other large cities, notably New York and Philadelphia, and compared them with the prices which it is proposed to pay the American-La France Company under the contracts about to be executed.

As a result of this conference I am convinced that, taking into consideration the matters above mentioned, the price which the City of Boston is to pay under the proposed contract is as favorable as has been obtained from the American-La France Company by any of the cities regarding which information was available.

I therefore see no reason why objections should be made by the Finance Commission to the contract which the Fire Commissioner proposes to make.

Respectfully submitted,

GUY C. EMERSON,
Consulting Engineer.

COMMUNICATION TO THE MAYOR
in relation to
THE APPOINTMENT OF AN ARCHITECT TO
THE SCHOOLHOUSE COMMISSION.

BOSTON, May 17, 1919.

HON. ANDREW J. PETERS, *Mayor:*

SIR,— The Finance Commission calls Your Honor's attention to the urgent need for appointing a person qualified by education, training or experience to the vacant position of Schoolhouse Commissioner.

This position has been vacant since April 30, 1918, and the vacancy has been temporarily filled by the appointment of the City Collector as acting commissioner. The assignment of the head of one city department to the supervision of another department is generally made for a temporary period only, and the commission believes that this period should be as short as possible, because temporary appointees cannot give the needed time, thought or attention to the administration of the department or to its proper development.

The City Collector stated to a representative of the commission that he gave only perfunctory attention to Schoolhouse Department affairs, that he attends meetings of the Board twice each week and passes upon the department's matters only on information furnished him by either the chairman or the associate commissioner. He readily admitted that he was in no position to judge correctly of the department's administration.

The Board at present is composed of Joseph P. Lomansky, chairman, James J. Mahar, formerly in charge of the heating and ventilating work of the department, and the City Collector. Not one of them is an architect, although a large part of the business of the department

deals with the construction of new school buildings and the remodeling of old. One member of the Board should be an architect, and such was the rule up to the administration of your predecessor, excepting the first ten months of the Board's existence. The act establishing the Board calls for the appointment of three persons.

The Survey Committee which investigated the school system of Boston in 1916 reported that Boston pays more and the child receives less than in other progressive cities in the matter of school accommodations, and that under present (1916) policies of the Schoolhouse Department conditions are becoming comparatively worse rather than better. Comparison was made between three typical school buildings in Boston, Cleveland and St. Louis and it was found that the cost in Boston was \$210 per pupil, in St. Louis \$178, and in Cleveland \$190.

In discussing the accommodations furnished by the Schoolhouse Department, the committee said:

In the opinion of the committee the fact that the Schoolhouse Department expressly states that it offers the Wells District School as a type of the new fireproof buildings to be erected in Boston should arouse the citizens and teachers of the city to protest. As compared with the most advanced practice of progressive school systems, such plans as those of the Wells District building are based on pre-modern ideals of education. The city is paying a price which should be sufficient to purchase the very best educational accommodations. The children are being provided with educational plants of better construction than those built a generation ago, but far inferior to those of other cities where the educational authorities direct the planning of schoolhouses, and architectural developments are shaped by educational progress.

In the present year the Schoolhouse Department will control the expenditure of \$2,709,151.67, principally for new schools. It will also control the expenditure of \$750,000 for a new Public Latin School if the bill providing for this school, which is now before the Legislature, is passed. There is a possibility that the new

school administration building will be erected this year, which will involve an additional expenditure of \$450,000. The Schoolhouse Department may therefore have the supervision this year of the construction of two most important buildings — buildings which will last for over half a century — besides the erection of numerous elementary buildings as well as the repairs to schoolhouses.

The proper expenditure of such a large amount of money makes it peculiarly essential that at this time a competent architect should be a member of the Schoolhouse Commission.

The commission recommends that the present vacancy on the Schoolhouse Commission be filled by the appointment of an architect.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE MAYOR
in relation to
THE FANEUIL HALL MARKET LEASES.

BOSTON, June 24, 1919.

HON. ANDREW J. PETERS, *Mayor*:

SIR,— The Finance Commission submits herewith a report on Faneuil Hall Market leases:

In 1908 an investigation of these leases was conducted by the former Finance Commission and recommendations made which increased the rentals of the stalls and cellars by $12\frac{1}{2}$ per cent. and the rent of the Ames Plow Company (the tenant of a portion of the second and of the third floors of the Quincy Market) from \$3,300 to \$5,000 a year. These increases raised the rental rate \$15,776 a year. As the tenure of the leases was lengthened * at the same time from five to ten years, the total estimated gain by the city was approximately \$157,776.

These leases expired on December 31, 1918, and since that time the tenants have been holding over at the same rental. The tenants have expressed a desire to renew their leases, but requested that the rentals be not increased.

The Finance Commission, recognizing that the leases were about to expire, called to Your Honor's attention on October 29, 1918, the need for studying anew the market lease situation, so as to determine whether or not the city should raise its rents. Your Honor requested the Finance Commission to make such a study. In order to arrive at a correct solution of the matter the commission sought the advice of three real estate experts, thoroughly familiar with rental as well as real estate values in the market district.

* See Revised Ordinances, 1914, ch. 22, sec. 2, and opinion of Corporation Counsel, City Council Minutes of 1908, p. 725.

They were Francis R. Bangs, Richards M. Bradley and F. Murray Forbes. All served without compensation and have submitted to the commission a report which will be discussed later. They are entitled to the thanks of the community for their services.

In order that the public might be given an opportunity to express its ideas, as well as to afford the market men a chance to be heard, this committee of real estate experts held a public hearing in Room 320, Tremont Building, on January 21, 1919. Representatives of the market tenants, civic bodies and the general public were present and offered to the committee various suggestions and recommendations.

The Superintendent of Markets submitted a report, in which he advocated leases to the present tenants for ten years without any increase, except that in cases of sub-sidewalk occupancy a charge of 50 cents a square foot should be added.

One of the speakers made a recommendation (often advanced in past years, but always rejected) that the leases be put up to public bidding and be knocked down to the highest bidder.

The market tenants argued for the continuation of the ten-year period, but against any increase in the amount of the rentals.

Faneuil Hall Market, so called, comprises the first floor and basement of the old Faneuil Hall building (called New Faneuil Hall Market to distinguish it from the Quincy Market) and the lower floor and basement of the Quincy Market building. Faneuil Hall Market limits, so called, include Faneuil Hall Market, Merchants row between the two buildings, the south sidewalk on North Market street, adjoining the Quincy Market building, and the territory on South Market street from Merchants row to Commercial street. (See Revised Ordinances of 1914, ch. 1, sec. 4, paragraphs 10 and 11.) These distinctions are important in discussing the subject of rentals for sidewalk space about these buildings,

because the Street Laying-Out Department has jurisdiction of the streets and sidewalks on Faneuil Hall square, while the Superintendent of Markets has authority over the sidewalks around Quincy Market building and the street area on South Market street within the limits above described. This division of authority is due to an old law (ch. 148, Acts of 1823), which authorized the City Council to extend the limits of Faneuil Hall Market. The limits thus authorized were established as they exist today, with the result that the sidewalks and streets on Faneuil Hall square are outside the Faneuil Hall Market limits and consequently come under the jurisdiction of the Street Laying-Out Department as public thoroughfares.

The Market Department has charge of the first floor and basement of Faneuil Hall building, the first floor and basement of the Quincy Market, the south sidewalk on North Market street, and the South Market street territory. Its jurisdiction does not extend to the second and third floors of the Quincy Market nor to the upper floor of the Faneuil Hall building. These portions are under the jurisdiction of the Public Buildings Department, although as a matter of courtesy the Market Department does police duty in the second and third stories of the Quincy Market building. (See Revised Ordinances, ch. 1, sec. 4, paragraphs 10 and 11; ch. 22, sec. 1; ch. 27, sec. 1.)

Even within the Faneuil Hall Market limits the authority of the Market Department is merely supervisory and regulatory, for all the repairs and improvements to the buildings are made by the Public Buildings Department. Thus there are three city departments which exercise independent jurisdiction in the market district.

NEW FANEUIL HALL MARKET.

This building is about 81 feet long by 103 feet wide; containing 8,460 square feet.

Basement.

There are thirteen (13) basement spaces of different depths (17 feet to 41½ feet) and varying in rental from 80 cents to \$1.78 a square foot.

The total annual rental from the basement spaces is \$8,096; the total square foot cellar area is 6,449. Most of the cellar lessees occupy sidewalk and street curbing space (there are at present four vacant spaces) for which a fee is charged them by the Street Laying-Out Department. This department has jurisdiction of the streets and sidewalks on Faneuil Hall square and by ch. 584, sec. 6, Acts of 1907, is required to collect fees ranging from \$5 to \$100, according to the value of the privilege granted. These fees are paid in addition to the rental of the cellars. If a person other than a lessee of the building, or if the lessee carries on a business on the sidewalk and at street stands different from his main business, the Street Laying-Out Department is permitted to levy a charge in excess of the above limits. There are three stands located on the corners of the buildings, but at a distance from the entrances to the basement stalls. These stands pay a special rental fee in accordance with the statutory requirement. The amount of this sidewalk and street space is 1,534 square feet, for which the city at present receives at the rate of \$1,720 a year.

When the leases were made out in 1908 a charge for street and sidewalk space was included by the Market Department in the rent for the basement stalls in New Faneuil Hall Market. The Street Commissioners also, in accordance with the 1907 act, had assessed a fee upon these same tenants for the outside-the-building stands, with the result that the tenants were being charged twice for the same privilege. The market men petitioned for an abatement and on April 4, 1912, were granted by the Mayor a reduction in their market rentals which approximated the amount paid to the Street Laying-Out Department for these outside privileges.

The reduction in the rents was so figured that the payments for rent and for sidewalk privilege under license from the Street Laying-Out Department for the entire period would equal the rents originally fixed in 1908. When new leases are drawn up therefore the per square foot charges should be based on the 1908 rental, less the fee paid to the Street Commissioners.

Two of the basement tenants occupy sub-sidewalk space, amounting to 1,098 square feet, for which no rent is charged. These spaces have been excavated and improved at the tenants' own expense.

Main Floor.

There are thirty-one (31) stalls on the main floor, being from 14 to 15 feet deep, and varying in rental from \$2.35 to \$3.41 a square foot, the price being influenced by corner location and proximity to the main entrance. The total area of the floor space is 5,598 square feet and the rentals from the thirty-one stalls are \$17,124 a year. Some of the tenants on the main floor occupy street and sidewalk space, but as a general rule the occupants of the main floor stalls do not occupy sidewalk or street space, as these privileges are taken by the basement tenants who depend upon the sidewalk "show" to conduct their business, the basement being used generally for storage or supply purposes.

The total rental for both cellar and main floor space is \$25,220, exclusive of the \$1,720 received for street and sidewalk spaces.

QUINCY MARKET.

This market (the long building) is about 50 to 55 feet wide and 534 feet long, occupying a lot area of 27,400 square feet.

Basement.

The basement is divided into forty-seven cellar spaces of varying widths (10 to $37\frac{1}{2}$ feet) and depths (14 to 47 feet), for which rental from \$1.26 to \$2.03 a square foot is paid. The total area of the cellar is 22,375 square feet and the total rental paid is \$35,324.

The basement tenants have also the privilege of occupying sidewalk and street stands, the value of which is figured in the rental of the basement space, but not separately, as follows:

1. For use of sidewalk only, 25 cents for each foot of cellar occupied.
2. Plank floor in the street 5 feet deep on North Market street and 8 feet deep on South Market street and as wide as the cellar occupied by the tenant, 20 cents for each foot of cellar occupied by the tenant.
3. When the latter is covered by a temporary roof, 45 cents instead of 20 cents.

In addition to these street and sidewalk privileges, thirty-three (33) tenants occupy 8,567 feet of sub-sidewalk space for which no rental is paid to the city, the excavation and improvement having been done at the tenant's expense.

There are three (3) stands outside the Quincy Market building, occupying 171 square feet of sidewalk area, at a rental of \$1,356 a year. One of these tenants (Edward B. Newton) also occupies 82 square feet of street and curb space. He pays \$564 for this privilege, which includes in addition to the 82 feet mentioned above 75 feet of sidewalk space. Another tenant (American Oyster Company) occupies the same sidewalk space as above (75 feet), but no street area, and also pays \$564. The third tenant (D. B. Tierney) occupies 21 square feet (approximately) and pays \$228.

Main Floor.

There are 132 stalls on the main floor, one of which is divided into two sections and leased to separate tenants. The stalls are 18 feet deep, exclusive of the walls, and cover a floor area of 16,003 square feet. The rents received from them are \$60,996 a year and vary from \$2.79 to \$4.87 a square foot, according to location on cross passageways and near entrances. The inner stalls

average about \$3.66 a square foot; the outer stalls on the corner of passageways average \$4.04 a square foot.

The lessees of the main floor stalls have no sidewalk or street privileges unless they are also lessees of cellar space.

Second and Third Floors.

The second floor of Quincy Market is under the jurisdiction of the Public Buildings Department, although the Superintendent of Markets does the actual work of policing and taking care of it. On this floor are located the following tenants:

1. Two offices of the Superintendent of Markets.
2. Law office of D. D. Corcoran.
3. Ames Plow Company.
4. Fruit and Produce Exchange and its sublessees.

The first two occupy a limited amount of the total floor space, the city offices being 491 square feet and that of Mr. Corcoran, leased direct from the city, being 255 square feet, for which he pays \$224 a year. The larger part of the second story, as well as the whole attic floor, is divided between the Ames Plow Company and the Fruit and Produce Exchange, the former leasing 35,195 square feet on both floors (16,908 square feet on the second floor and 18,287 square feet on the third floor) at \$5,000 a year rental; and the Fruit and Produce Exchange leasing direct from the city 5,695 square feet on the second floor, for which it pays \$1,962. In addition to the area leased direct from the city, the Exchange subleases 3,294 square feet on the second floor and 2,892 square feet of attic space, and pays therefor \$1,020 to the Ames Plow Company.

The Fruit and Produce Exchange has divided its subleased premises into twenty-two offices on the second floor and into locker space in the attic, and has leased them to marketmen for private offices, etc., at a rental of \$6,206.83 for the year 1918, or approximately \$3,224.83 more than its rental payments, besides receiving its own

quarters without charge. The Exchange furnishes heat, janitor's services and water to its tenants, and also supplies heat to the City of Boston offices. The total expense for fuel, light and water was \$946.67, and the City of Boston pays to the Exchange \$40 a year for heating the two offices of the Superintendent of Markets. The cost of subdividing the offices amounted to \$6,000, the work having been done in 1913. The Public Buildings Department enlarged the windows and installed metal ceilings in this subleased portion at a cost of approximately \$2,000.

The rest of the second and third floors is occupied by the Ames Plow Company.

REPORT OF THE SPECIAL COMMITTEE.

The findings of the three real estate experts of the Finance Commission resolve themselves into nine recommendations, which summarized are as follows:

1. Positive evidence as to the proper adjustment of rents between stall and stall and space and space should be established.
2. Plans of all rentable space, including sidewalk and curb, with areas carefully figured, should be made and furnished the Superintendent of Markets, so as to apportion rents for each class of occupancy.
3. Tenants of cellars with sidewalk privileges as a class are not paying enough rent.
4. Cellar leases should be increased 15 per cent.
5. On account of general unsettled conditions, leases should be given for five or ten years at present rentals, reserving right of city to call for general readjustment of rent after a year, with right to tenant to cancel if dissatisfied with readjusted rental; or tenant wishing a full five or ten years' lease should be granted same at 7 per cent. increase over present rate for the former term (five years) and 15 per cent. for the latter (10 years).
6. Where tenants have improved the property at own expense and where improvements have not paid for themselves, special rates to those tenants.
7. The second floor should bring a rental of 75 cents a

square foot for that portion which has not been divided into offices and more than \$1 a square foot for the office space.

8. The third floor should be rented at 15 cents a square foot.

9. Certain improvements should be made in the market district, such as sidewalks, hot water within the buildings and ratproofing.

FINANCE COMMISSIONS' FINDINGS.

The Finance Commission has studied these recommendations and has investigated those matters where further inquiries were recommended. The commission has studied the rents charged and finds no great evidence of any improper apportionment of rentals. All the rentals are figured either on corner, passageway or interior location value, and generally bear a proper relation to one another.

There appears to be some slight discrepancies between a few stalls and cellars, as follows:

New Faneuil Hall Market, Stall No. 11 has a per foot rate of \$2.99, as against all other stalls on the same side of \$3.21 to \$3.32. Cellar 3½ pays a rate of \$1.78 a square foot, while Cellar 3, which is practically the same size and adjoins it, pays \$1.23. The reason for the difference lies in the fact that Cellar 3½ did not use sidewalk privileges appurtenant to its basement, and therefore was not assessed a double tax by the Street Laying-Out Department for these sidewalk privileges. Consequently it did not participate in the reduction ordered by the Mayor on April 4, 1912, mentioned above. (See p. 95 of this report.)

Quincy Market, Cellars No. 2 North and No. 4 North are almost the same size, yet No. 2 pays \$1.34 a square foot and No. 4 \$1.79.

Cellar No. 11½ North is not charged for approximately 311 square feet that lie between Cellars 11½ and 11, with the result that the occupant of No. 11½ North gets an average per foot rental of \$1.26, while the occupant to the east of his location (No. 13) pays \$1.63, and the occupant to the west of his location (No. 11) pays \$1.35.

A valuable privilege for which no fee is charged is given to McLean's Roxbury Express in two spaces in front of the main entrance to the Quincy Market building. This firm maintains a call desk placed against the corner column, with a telephone connection, from which it carries on its business. It also keeps a box, approximately 6 feet by 3 feet, on the sidewalk for the storing of parcels between trips to the territory covered by the express. It is stated in justification for granting this free privilege that it is a convenience to the market-men. As a matter of fact it is giving free office and storage rental to one firm at a location which constitutes a big advantage to this company over a number of competitors.

These discrepancies should be corrected before new leases are made.

Your Honor, at the request of the commission, had plans drawn by the engineers of the Street Laying-Out Department of all the rentable space in the two market buildings, floor area, sidewalk, sub-sidewalks and curb space, and the space occupied by each stall has been apportioned to each separate holding. Considerable variances between the square foot area figures of the Market Department and those in the survey were found. These discrepancies were found to be due largely to the tearing down of walls between different stalls when their owners combined in business, or the business of one stall was taken over by its adjoining neighbor. These figures have now been computed by the engineers of the Street Laying-Out Department, so that the city government can definitely fix the rental value for each square foot of rentable space.

From the present records in the Market Department it is impossible to learn exactly the basis for the sidewalk and street curb rental charge around the Quincy Market. It was first stated by the market authorities that this space about the Quincy Market was occupied rent free, the only charge being made for the cellar space, but the records of the former Finance Commission show

that in arriving at the cellar rentals in 1908 a charge for curb and sidewalk was included on a fixed basis. This schedule appears on page 97 of this report. The sidewalk and curb space on New Faneuil Hall square is figured separately, according to ch. 584, Acts of 1907. Occupation of the space under sidewalks, however, is free. It should be charged for, as recommended by the former Finance Commission and by the present Superintendent of Markets, at 50 cents a square foot for all such sub-sidewalk area occupation.

Special consideration should be given, however, to those tenants who have recently extended and improved their sub-sidewalk areas, by constructing permanent additions and extensions which are a part of the building and become the property of the city at the termination of the tenancy. In such cases the additional area should be charged for at the rate of one half the per foot charge for cellar area for a period of five years after the improvement has been made. The period seems to be a reasonable one in which to charge off the cost of the improvement, and a rental thereafter at 50 cents a square foot for sub-sidewalk area would seem fair and equitable to the city and the tenant.

With the exception of Horrigan & Doe at new Faneuil Hall Market, where the sub-sidewalk improvement was made in the fall of 1918, all of the other sub-sidewalk excavations were made many years ago. Horrigan & Doe should be charged one half (25 cents) the per square foot charge for its sub-sidewalk area at New Faneuil Hall Market for the period 1919 to 1924, and the full rental (50 cents) from 1924 to 1930.

The commission feels that the 15 per cent. increase recommended by the committee for cellar and stall occupancy is reasonable and fair, considering the present condition of real estate. The increases in the cellars of New Faneuil Hall Market should be based on the per square foot charges as established by the 1908 rentals, before the reduction in 1912 by order of the Mayor.

Deductions to cover the fees of the Street Laying-Out Department should then be made from these cellar rentals.

The commission believes that it is for the best interests of the city that the question of market leases should be definitely decided this year, and that it would be against its financial interests to grant ten-year leases at present rentals with proviso for readjustment at the end of one year. To do so would only defer the settlement of the matter for another year.

The commission therefore concurs in the committee's recommendation that leases be granted for ten years at an increase of 15 per cent.

The second and third floors of the Quincy Market present a problem entirely different from that of the stalls on the main floor or the cellar space. These floors are largely undivided and are occupied by two principal tenants. The commission concurs in the recommendation of the committee that 75 cents a square foot be charged for the undivided second floor, and 15 cents a square foot for the attic space.

The space occupied by the Fruit and Produce Exchange, however, may be treated differently. That portion which is occupied by the Exchange itself, and which consists of a large assembly hall for market quotations and several private offices of the executive secretary and for the directors, should be rented on the basis of \$1 a square foot, as recommended by the committee.

The space which is subleased as offices should be charged for also on the basis of \$1 a square foot. Both of these portions of the building should be leased to one tenant, as such an arrangement will free the city from heating and janitor's services incident to the leasing of the premises direct to small holders.

The recommendations regarding the street improvements have been investigated by the engineer of the commission, and he reports that tenants interviewed were strongly against such interruption to their business

as the suggested improvement would entail. He finds that the street pavements about the market buildings compare favorably with those of other streets in the district, and that the sidewalks for the greater part are in excellent condition. In a few cases he found that the refrigerating pipes of cold storage companies have caused trouble by freezing the ground and causing the sidewalks to expand upward. This action, he reports, apparently cannot be prevented.

As regards hot water facilities, it is understood that the Public Buildings Department will shortly install this convenience in the women's apartment on the second floor of the Quincy Market, but no arrangement has been made for such service in the men's station. It is recommended that hot water faucets be installed in the men's station as necessary sanitary conveniences. The other improvement of ratproofing, suggested by the committee, should be considered when the renovation of Faneuil Hall and Quincy Market is undertaken.

The commission believes that the suggestion of public bidding should not receive the serious consideration of the city authorities, for no careful real estate owner would adopt such a method of renting his premises, or would dispossess a good tenant without assurance of positive gain. Instability of tenure would soon occur and thus result in great losses to the city, as the market-men would not care to continue business on such uncertain conditions.

A bill (House No. 150) was introduced this year by Representative Niland, providing for the mandatory public auction of the market leases once in every three years. The bill was given leave to withdraw by the Committee on Cities and the report was accepted in February, 1919, by the House and by the Senate.

SUBSIDIARY MATTERS.

The records of the Market Department should be kept in such manner as to show with exactitude the number and names of those who assign or sell their leases. The

ordinance requires the superintendent to assent to an assignment, but so many assignments have been made for the purpose of obtaining a loan from a bank that the present superintendent could not distinguish which were *bona fide* and final sales of the leases or which were temporary assignments for loans of money. The department should have a card record system, so designed as to show the business record of each stall.

Another matter to be considered before leases are signed is the renovation and repair work which it is contemplated will be done in both buildings. The city government has appropriated \$118,000 (\$68,000 for Faneuil Hall and \$50,000 for Quincy Market), and the improvements will undoubtedly call for changes in many of the stalls. The leases, therefore, should be drawn so as to protect the city from suits by lessees for interference with their leases should the improvements be made after the leases are granted.

The commission recommends that:

1. Leases of stalls and basement spaces be made on the basis of a ten-years' tenure.
2. Rentals of stalls and basements be increased 15 per cent.
3. Sub-sidewalk space be charged for at 50 cents a square foot, except where the area has been excavated within five years the charge should be 25 cents a square foot for five years; thereafter 50 cents a square foot.
4. The rent of the second floor of the Quincy Market be fixed at 75 cents a square foot for all unimproved space, *i. e.*, the portion now occupied by the Ames Plow Company, excepting 228 square feet of improved office space.
5. The rent of the improved portion of the second floor be on the basis of \$1 a square foot, *i. e.*, the 228 square feet of improved office space of the Ames Plow Company, the office of D. D. Corcoran, and the part now occupied by the Boston Fruit and Produce Exchange and its sub-lessees.

6. The rent of the third floor be fixed at 15 cents a square foot.

7. Hot water and improved toilet facilities in the men's compartment be installed at once.

8. Leases be drawn so that the rights of the city will be protected in case changes to the structure of either New Faneuil Hall Market or Quincy Market are undertaken after leases have been signed.

9. New card records be installed in the Market Department office and kept up to date, showing the history of each stall and spacing leased by the city.

If these recommendations are carried out the gain to the city will be approximately \$39,724.75 a year, or \$397,247 for the ten-year term, as follows:

NEW FANEUIL HALL MARKET.

	Present.	Proposed.
Stalls and cellars	\$24,220 00	\$29,709 80
Sidewalk and street stands.....	1,720 00	1,720 00
Sub-sidewalk spaces.....		379 00

QUINCY MARKET.

Stalls and cellars (including street and sidewalk charges),	\$96,320 00	\$110,768 00
Second and third floors.....	7,186 00	22,269 55
Sub-sidewalk space.....		4,121 00
Outside stands.....	1,356 00	1,559 40
Total.....	\$130,802 00	\$170,526 75

The net return to the city from these increased rentals, after deducting an amount equal to the taxes (\$58,936), the annual cost of the Market Department (\$13,501), and the annual average for repairs (\$4,000), will be about 3½ per cent. on the present valuation of \$2,780,000 for both buildings.

The report of the special committee, as well as a tabulation of the present tenants and their holdings, showing

present and proposed rentals, and the plans of the market buildings are submitted herewith.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

REPORT OF THE COMMITTEE APPOINTED IN DECEMBER,
1918, TO CONSIDER THE MARKET RENTS.

BOSTON, March 6, 1919.

Your committee begs to report as follows:

1. *As to the Stalls and Cellars in the Quincy and Faneuil Hall Markets.*

Your committee has not undertaken to adjust the relative values of the different stalls and of the different cellars. We understand that this was gone over with care by a previous committee, and we believe that these relative values can be established by some person more familiar with the special conditions in the market than we can hope to become in the time at our disposal. We have heard no complaint of any unjust discrepancy between one rent and another of the same class, and the fact that no dissatisfaction appears to exist creates the assumption that the rents are properly adjusted in that respect. It seems, however, to be desirable, before the leases are renewed, that there should be positive evidence on this point from the Superintendent of Markets.

We recommend that the Superintendent of Markets be furnished with complete, up-to-date plans of all the rentable space in the buildings, with the areas carefully figured, and that such plans should show also the sidewalk space available for mercantile use appurtenant to each cellar so that it can be more readily and definitely figured how the rental is apportioned between stalls and cellars with sidewalk privileges in cases where one tenant occupies more than one class of space.

Assuming that the relative scale of rentals of stalls and of cellars is correct, it appears to us that the tenants of cellars which have sidewalk privileges are not as a class paying enough rent in proportionn to the space which they have the right to use, which includes portions of the large covered space in the passage around the market available for the display and sale of their goods and the transaction of business.

We therefore recommend as previously stated that the rents attributable to stalls and cellars be definitely apportioned, showing what is paid for stalls and what is paid for cellars, whenever both are included in one lease.

When this has been done we believe that the city should readjust its rents by adding at least 15 per cent. to its cellar with sidewalk leases, in order to more fully cover the value which we believe exists in the combined space used.

With the adjustment made, the general adjustment of rents is still to be considered. There are indications that the condition of business in the market is improving. It is commonplace knowledge, however, that conditions generally are unsettled, and it is a poor time for landlord or for tenant to make guesses for the distant future. We should advise, therefore, making the leases for as short a term as will be acceptable to the tenants. Present tenants who do not insist on having their rents settled for five or ten year terms in the manner later suggested, should be confirmed in their tenure. We recommend that rents remain unchanged till general conditions have become more stable. Five or ten year leases should be given at present rents, but with the right of the city to call for general readjustment of rents after a year with the right of the tenants to cancel leases if dissatisfied with rents as readjusted. If, however, any tenants wish to take leases now for five or ten years at fixed rents, we recommend that they should be given but at an increase of 7 per cent. for a five-year lease and 15 per cent. for a ten-year lease.

There are certain cases where tenants have made

substantial improvements to the property. It is a custom of a competent ownership to make proper allowance and to give special rates to tenants who do this, as they add to the security of the landlord and to the value of the property. Such cases can properly be given special treatment where the improvements are sufficiently recent not to have paid for themselves.

2. As to the Upper Part of the Quincy Market.

Your committee finds that except for some few offices the easterly part of the second floor and the attic above is leased to the Fruit and Produce Exchange, which has its Board room and offices there but has subdivided a considerable portion of its space and sublet it to great advantage. The rotunda and the westerly part of the second floor and attic are leased to the Ames Plow Company. Both of these concerns furnish themselves with heat and with such other services as they need.

The whole second floor is good space, well lighted and available either for mercantile purposes or for subdivision into offices of the type into which the Fruit and Produce Exchange has cut its surplus space and for which there appears to be a demand. The attic, though low at the sides, contains much good storage room. We think that the city is not getting sufficient rent for the second floor and attic. In our opinion the fair rental value of the second floor undivided is 75 cents a square foot and the fair rental value of the attic is 15 cents a square foot for the present floor space (including the low part at the sides). So much of the second floor as has been divided up into offices should let for more than \$1 per foot for net space rented.

3. In General as to the Whole Market Property.

Were the ownership of the property in private hands, ordinary business sagacity would recognize that the present character of occupancy is a distinct asset creating value in the property, the benefit of which goes both to owner and present tenants.

We see no reason why the ownership by the public imposes any obligation to destroy this value by creating any unusual instability of tenure, as we understand has been proposed by putting up stall leases at auction once in three years or so. No private owner who had any regard for his financial interests would deal with such a property in this manner. The value of the property to the public not only as a revenue producer but in affording a desirable market is undoubtedly increased by a policy that attracts and holds a class of tenants of known repute and reliability, and the policy should be maintained.

The usefulness of the property to the public could, however, in our judgment be increased by having it surrounded by a sanitary pavement, and by furnishing hot water washing apparatus for those who handle the food, and it might be increased as a result of a careful study of the possibility of ratproofing. Public ownership in our judgment does entail special responsibility in respect to insuring the safety of the public by providing better sanitary conditions than now exist. A portion of increased rents devoted to this purpose would be an advantage to both tenants and to the public.

Respectfully submitted,

RICHARDS M. BRADLEY,

F. MURRAY FORBES,

FRANCIS R. BANGS,

Committee.

COMMUNICATION TO THE MAYOR
in relation to
THE COLLECTION OF TAXES.

BOSTON, June 3, 1919.

HON. ANDREW J. PETERS, *Mayor*:

SIR,— The recent audit of the City Collector's office for the fiscal year ending January 31, 1919, shows an uncollected balance of taxes and other charges due the city amounting to \$11,572,313.25, as against \$9,418, 686.98 uncollected on January 31, 1918, an increase of \$2,153,626.27.

This large increase in uncollected taxes and other charges is due undoubtedly in a large part to the fact that the 6 per cent. rate of interest on overdue taxes, in view of the comparatively high interest rates of the past year, was not sufficiently high to force the prompt payment of taxes.

The commission believes that if the legislation requested by Your Honor to increase the interest rate on taxes more than three months overdue to 8 per cent. is passed by the General Court it will result in a more prompt payment of taxes.

Under the present system, which requires the deputy collectors to deliver the water bills and the personal, real estate and poll tax bills, almost ten months of the year are spent by these employees, who receive an annual salary of \$1,800, in either delivering bills or addressing envelopes in longhand. The proper collection of personal property and poll taxes requires that the deputy collectors should begin collections shortly after the taxes are due, and that they be permitted to continue that work and not be required to deliver bills and do clerical work, writing summonses and demands and addressing envelopes in longhand.

The city has never collected its poll taxes successfully. The collections have averaged about 20 per cent. which has resulted annually in a loss to the city of over \$300,000. This failure to collect poll taxes is unnecessary and unwarranted, as is proved by the fact that the city of Springfield last year collected 96 per cent. of its poll taxes.

The collector this year, by establishing outside stations for the payment of polls, has substantially increased the collections, but has been obliged to close the stations to enable his deputies to deliver water bills. It is particularly important that poll taxes be collected this year, as the bill now before the Legislature, providing for the payment of a bonus of \$100 by the state to all Massachusetts officers and enlisted men who have served in the war, provides that the \$20,000,000 which it is estimated will be necessary to make this payment is to be raised by the sale of five-year state bonds, and that the state is to be reimbursed by the cities and towns, one half to be raised on general taxes and one half by a special poll tax of \$3 for the next four years. If this poll tax is not collected the tax on real estate will be increased to provide for the deficit from the noncollection of polls.

It is also important that all outstanding taxes possible be collected this year, in order that the city may on January 31, 1920, have a large amount of money in the treasury which will reduce the amount of the necessary increase in the tax limit for next year.

The commission finds that the Police Commissioner is willing to have the police deliver the real estate, tangible personal property and poll tax bills, which will provide a prompt and effective delivery and enable the deputy collectors to devote a very much greater amount of time to the collection of taxes.

It is apparent from the report of the accountant that the methods of accounting and the organization of the City Collector's office are not of the best and should be reformed and modernized. A representative of the

commission has talked with the City Collector, and he is of the same opinion and desires that an examination of his office be made for the purpose of recommending changes in the system which would provide for a better organization and a speedier and more efficient collection of taxes.

The commission finds that the State Bureau of Statistics has examined the offices of several tax collectors and is equipped and willing to undertake an examination of the City Collector's office for the purpose of making recommendations for improvements in methods of accounting and collecting. The commission believes it essential that the practices of the City Collector's office be corrected, in order to accomplish a better collection of taxes and other commitments.

The commission recommends:

1. That Your Honor confer with the Police Commissioner to arrange for the distribution of tax bills by the Police Department.
2. That Your Honor request the State Bureau of Statistics to undertake an investigation of the methods and organization of the City Collector's office.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE MAYOR
in relation to

THE ACCEPTANCE OF THE SPECIAL ACT IN-
CREASING THE PENSIONS OF JANITORS
AND ATTENDANCE OFFICERS OF THE
SCHOOL COMMITTEE.

BOSTON, June 9, 1919.

HON. ANDREW J. PETERS, *Mayor*:

SIR,—The Finance Commission has received your request for a report on the acceptance of ch. 132, Special Acts of 1919, which would increase the pensions now paid to janitors and attendance officers of the School Committee from \$360 to \$500 a year. The commission submits the following report:

The principle underlying the act is similar to that of ch. 55, Special Acts of 1919, which if it had been accepted would have permitted the city to increase laborers' pensions from \$360 to one half their compensation. Both acts involve noncontributory systems of pensions, and the pending act falls within the prohibitory reasons set forth in Your Honor's communication to the City Council of April 9, 1919, in which you vetoed the laborers' increased pension act.

All the reasons set forth in that communication apply with equal emphasis to the pending act. Even more so, because it increases still further the noncontributory system of pensions in a department of the city where the majority of its employees (the teaching force) is now operating under a contributory pension system. To increase the pensions of the janitors and attendance officers still further would undoubtedly cause the teachers to inquire into the reasons for discriminating

against them, and might force the issue in the Legislature as to a complete noncontributory system for the entire school department.

There is no justifiable reason for differentiating between a school teacher and a school janitor or attendance officer.

The commission believes that Your Honor should view this pending act in the same manner as the laborers' pension increase and should refuse to approve it.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE MAYOR
in relation to
THE ESTABLISHMENT OF A PENSION
FUND FOR LIBRARY EMPLOYEES.

BOSTON, June 26, 1919.

HON. ANDREW J. PETERS, *Mayor:*

SIR,—The Finance Commission has received Your Honor's request for a report on the petition addressed to you by the Pension Committee of the Boston Public Library Employees' Benefit Association for the establishment of a pension fund for library employees. The commission has studied the request and, on account of the fundamental objection to the establishment of such a plan, reports against it for the following reasons:

1. The City of Boston financially is in no position to subtract annually for such a purpose approximately \$8,000 (the amount of the library fines) from its revenues.
2. To allow the library employees to establish such a fund from the city's income would probably result in a similar demand by other city departments which collect hundreds of thousands of dollars annually in fees and for permits.
3. To establish a policy of diversion of fine money might reflect in time upon the character of the library service, as the library employees would look upon fine money as library employees' income, and thus have a tendency to combat any change or improvement in library methods which might decrease the amount of the fines.

For these reasons the Finance Commission advises Your Honor to withhold your approval of the plan proposed by the Pension Committee.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE COMMITTEE ON CITIES
in relation to

THE BILL PROVIDING FOR AN INCREASE IN PENSIONS PAID TO FOUR BENEFICIARIES FROM THE CITY'S REVENUE.

BOSTON, July 16, 1919.

To the Honorable the Committee on Cities:

GENTLEMEN,—The Finance Commission desires to draw your attention to the need for rejecting Senate Bill 638, providing for an increase in the pensions now paid four beneficiaries from the city's revenues. These beneficiaries are the widows and the mother of former police officers who were killed while in the discharge of duty. Each is in receipt of \$300 a year—the customary and usual stipend paid to widows of deceased policemen. This established sum, however, has been increased this year to \$600 by ch. 93 of the Special Acts of this year.

In a few special cases, where the death of the policeman occurred under atrocious circumstances and the dependent widow was left with a large family, the yearly payment has been authorized in the sums of \$900 and \$1,200. But these instances have been rare and the circumstances under which such a large bounty was granted were unusual. The generosity of the public treasury has never been called upon, however, to cover cases which happened many years ago, and where the situation of the families has had a chance to recover from the loss of the supporter.

In the pending act the pensions were granted in the following years:

	Year.	Approximate Amount Paid to Date.
Emma F. Sturdivant, wife.....	1904	\$4,375 00
Mary A. Lynch, mother.....	1908	3,175 00
Jennie R. Schlehuber, wife.....	1910	2,575 00
Alice M. Peterson, wife.....	1912	1,975 00
		\$12,100 00

Payments already made to these four beneficiaries total \$12,100, but as they are all living the total expenditures by the city will be much greater.

One of the reasons advanced for such a grant is usually the actual financial need of the family, due to the cutting off of the source of the family revenue. Such reason cannot be advanced in these cases, because time alone has allowed for the period of readjustment. In two cases even this financial reason does not hold good. The Schlehuber case, examined in the Probate Court records, shows the deceased father left \$405 in cash and an insurance policy of \$2,000 payable to his wife and his two minor children. These children, if living, would now be 26 and 19 years of age and old enough not only to support themselves, but to contribute to the comfort and care of their mother. There is no reason why the public should now be asked to contribute further to that support.

The Lynch case has even less equity than that of the Schlehuber family. Mary A. Lynch is the mother of the deceased policeman and is the wife of James E. Lynch, listed in the directory as a superintendent at 34 Farnsworth street, South Boston. In addition to the \$300 stipend received from the city, she is the owner of the house where the family resides (11 Bainbridge street, Roxbury), assessed for \$4,900.

There are fourteen (14) other cases on the police rolls and forty-six (46) on the fire rolls, where the \$300 payment is made. If the pending act is passed there will be no valid reason for not extending the increased bounty to these sixty (60) pensioners. To do so would add an increased burden of \$36,000 a year to the city.

Mayor Collins, in 1904, refused to approve acts providing for payment of money to relatives of deceased city employees on the ground that it was a gift of money for no service whatever rendered to the public and therefore not warranted in public morals.

The Finance Commission believes that neither equity

nor justice underlies the motives of the present petition and is of the opinion that a precedent of such a retroactive nature should not be given even the status of consideration by being placed upon the statute books. The commission recommends that your honorable committee give the petitioner leave to withdraw.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE MAYOR
in relation to
PENDING LOANS FOR PLAYGROUNDS.

BOSTON, July 18, 1919.

To the Honorable the Mayor and City Council:

GENTLEMEN,—The Finance Commission desires to direct your attention to the following facts relative to five pending loans for playgrounds, which take their second reading at next Monday's meeting of the City Council:

Adams street, Dorchester	\$55,000 00
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It is proposed to acquire the Coffin-Rankin land on Adams street, Dorchester, opposite Lonsdale and Mallet streets, containing 191,359 square feet. The engineer of the Park and Recreation Department, in a communication to the chairman of that department, dated January 21, 1919, makes the following statement regarding this location:

It is a very good location for a playground, being about equally distant from Christopher Gibson, Ashmont, Tenean Beach and Neponset Playgrounds.

The assessors' valuation is:

Land	\$11,500 00
Buildings	1,500 00
Total	<u>\$13,000 00</u>

and the cost of construction will probably be about \$25,000, so that the total cost of a playground, taking in all of this land, would probably be about \$40,000. This is comparatively cheap for a playground of that size. This is taking the cost of the land at 25 per cent. above the assessors' valuation.

No investigation has been made by the Park and Recreation Department of the probable cost of the land. The owner stated to a member of the Finance Commission that he considered the land worth \$40,000 and was unwilling to sell it to the city for any price substantially less than this amount.

The commission believes that considering the claim by the owner as to the value of the land, it will be impossible to acquire and equip the playground within the amount of the proposed loan.

The commission is of opinion that the present playground facilities in the neighborhood are such that the city would not be justified in expending the amount which it appears is necessary to purchase and equip this playground.

Extension of Carolina Avenue Playground \$56,000 00

This playground now has an area of 134,159 square feet and apart from maintenance charges has cost the city \$39,131.42. Last year the commission, at the request of the Mayor, investigated the conditions at this playground and advised against a suggested loan order for \$23,000. This year a request is made for \$56,000, for the purpose of enlarging the baseball field and making some changes in the layout.

The commission believes that, considering the proximity of Franklin Park, the present playground affords adequate facilities to the neighborhood.

Charlestown Playground \$22,000 00

The playground is situated near Sullivan square, has an area of 630,754 square feet, is equipped with an open-air gymnasium and running track, and has a baseball field and small locker building. It is also flooded in the winter and used for skating. It is proposed to extend the locker building, construct some tennis courts, and do some grading.

The commission believes that the character of the use of this playground is such that it is not necessary to build an extension to the locker building, and that there is little or no demand from the inhabitants of the neighborhood for tennis courts. The attendant in charge stated to a representative of the commission that the playground was not in use extensively at the present time.

Wood Island Park \$50,000 00

The Waterways Commission of the Commonwealth is filling the flats of the beach at Wood Island, with the result that the bathing facilities are somewhat interfered with. The chairman of the Park and Recreation Department states that it is his plan to build a bulkhead that will hold back the fill and also construct sluice gates which may be closed, so that there will be sufficient water at the beach to permit bathing at all stages of the tide.

The construction of such a bulkhead is very expensive, the cost being about \$100 a running foot, so that this loan, if granted, would only in part defray the cost of the proposed bulkhead which, to be effective, would necessarily be in excess of 500 feet in length. The chairman of the Waterways Commission states that a very large amount of filling and development work is to be done by the Commonwealth at this place, which will injure to some extent the present bathing facilities at Wood Island Park. He appreciates the obligation of the Commonwealth to protect the rights of the city and agreed with a member of the Finance Commission that, when the work to be done was finally determined, he would see that the bathing facilities at Wood Island Park were protected and that he believed the work should be done at the expense of the Commonwealth.

The commission believes that the Commonwealth should, and will, at its own expense, protect the bathing facilities at Wood Island Park, and that there is therefore no occasion for the passage of this loan.

Mission Hill Playground \$8,000 00

This playground, which was completed about two years ago, has cost the city, apart from maintenance charges, \$326,060.96. It has a shelter and playground for small children, a base ball field for children under 14 years of age and an oval and running track. The oval is lighted by four arc lights, so that it can be used at night. Councilor Watson has introduced an order for the further development of the running track and oval. It is proposed to change the oval to a baseball field and to construct a high fence to protect adjoining buildings from injury.

The commission believes this to be an unwise and unnecessary expenditure and that the suggested change in the layout is not required by the needs of the district. The oval was constructed at great expense and its use should not be abandoned until a sufficient time has elapsed to determine beyond question that the change should be made.

The commission recommends:

1. That these orders be withdrawn by the Mayor; or
2. That the Council refuse its approval thereof.

Respectfully submitted,

THE FINANCE COMMISSION,

by GEORGE A. FLYNN,

Chairman.

COMMUNICATION TO THE MAYOR
in relation to
THE PURCHASE OF A LARGE ASPHALT
MIXING PLANT.

BOSTON, July 19, 1919.

To the Honorable the Mayor:

SIR,— The Finance Commission desires to call the attention of Your Honor to the desirability of the purchase by the city of a large asphalt mixing plant, to be operated by the city, of an approximate capacity of 2,000 yards a day. Such a plant, ready to operate, would cost about \$30,000, and with reasonably efficient management could be operated at full capacity for at least 125 days a year.

The initial cost of these plants is so large that but three are in use in and around Boston. Their operation has been uneconomical, because the owners have not had sufficient contracts to require constant operation at full capacity. This fact, with the added condition of restricted competition, has resulted in an average price to the city of about \$1.85 per square yard for bituminous surfacing material.

The commission believes from the investigation made by its consulting engineer that with the present prices of asphalt, crushed stone, sand and labor, the city would, by operating a large mixing plant, be able to obtain surfacing material, either of the bituminous concrete or standard sheet asphalt variety, for not exceeding 70 cents per square yard, including labor, materials and fixed charges. The cost of laying, if done by contract, should not exceed 50 cents a yard. This would represent a saving of 65 cents a square yard, or assuming a total output of 250,000 square yards, an annual saving

of approximately \$160,000 as compared with the cost of the same area if done by present methods.

This large saving is possible because:

1. It has been customary to require contractors laying asphalt or bituminous pavements to guarantee their work for five years. The guaranty has been considered necessary as an insurance against the use of poor or insufficient materials, or careless operation of the mixing plant. The ordinary charge made by the contractor for the guaranty has been 25 cents per square yard. In actual practice this guaranty has been of little or no value to the city.
2. Privately owned plants have been operated at only a small fraction of capacity, with the result that the capital investment and overhead expense of necessity have been pro-rated over a small output, which has increased the price of the product.
3. The narrow field of competition has prevented the city from obtaining the benefits of real and active competition.

The operation of a mixing plant of the type recommended would require the services of a skilled foreman and not more than fifteen or twenty laborers. Its use would not, apart from the foreman, require any addition to the labor force, as necessary men could be obtained by transfer from the Public Works Department and could be returned to their former employment during the winter months while the mixing plant was not in operation.

The plan proposed by the commission is for the city to purchase a plant, make yearly contracts for the purchase of materials, and furnish the mixed materials to the contractor, the work of hauling, laying, preparing foundations, resetting curbstones, etc., to be done by the contractors under advertised contracts.

This plan is not new. It has been in successful operation in several large western cities.

In connection with the purchase of the plant the commission recommends that Your Honor request the Public Works Department to make a survey during the

fall and winter of the streets in the different districts of the city that need resurfacing, so that the street program for the year will be ready not later than March 1, 1920.

A survey of paving matters for the past two seasons indicates that it has been the policy of Your Honor's administration to devote a much greater portion of the city's paving expenditures to the improvement of streets already paved, particularly those in the down town congested district, than has been customary in former years. During the season of 1918-19 this policy was particularly noticeable. During the present season the same policy is being followed, with the addition of the improvement of a few of the suburban radial highways and some very meritorious local improvements on macadam streets in the South End district.

As a result there has been a distinct deterioration in the general condition of the macadam street area. Very few of these streets are at the present time in even fair condition and many of them are in such condition as to require rebuilding and are positively dangerous to the traveling public.

The Finance Commission believes that by the adoption of the method herein recommended the city will be enabled to resurface its macadam streets with a surfacing of at least ten years' average durability, not only with great benefit to the traveling public, but also at a great financial saving over the methods at present employed.

In general the contingencies that prevent the improvement of downtown streets, that is, the necessity of underground work by the city departments and by public service corporations, do not exist in great degree as regards suburban streets. There is no reason why plans, specifications and contracts for large areas of such streets cannot be prepared during the winter season, so that the work of resurfacing can be begun early in the season and continued without interruption.

The commission believes that if this is done and the plant herein recommended is purchased in time to be in operation by April 1, 1920, the following advantages will accrue to the city:

1. The assurance of proper and sufficient materials in the mixing of the asphalt and bituminous pavements.
2. A very large saving to the city in the per square yard cost of its pavements.
3. The possibility of rapidly eliminating the city's macadam streets by replacement with first-class bituminous pavements.
4. The opportunity for greater competition, by allowing small contractors with equipments for the construction of ordinary macadam pavements to take part in the work.
5. The possibility of a reduced price in competition with the city plant by contractors already possessing mixing plants.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

SECOND COMMUNICATION TO THE MAYOR
in relation to
THE ESTABLISHMENT OF A PENSION FUND
FOR LIBRARY EMPLOYEES.

BOSTON, August 13, 1919.

HON. ANDREW J. PETERS, *Mayor.*

SIR,— The Finance Commission has received your letter of August 7, inclosing a copy of the letter of the Committee on Pensions of the Boston Public Library Employees' Benefit Association. The commission has read the reply of the committee to the Finance Commission findings that your approval to the establishment of a pension fund for library employees from the "fine" money be withheld and has noted the arguments set forth for a reopening of the case before the Finance Commission.

The committee charges the Finance Commission with a hasty review of its petition and a want of proper consideration and judgment upon the merits of the case. Such assumptions are not true. The commission discussed the matter at length but was so firmly convinced of the fundamental weakness of the petition that it felt that nothing would be accomplished by holding a formal hearing on the matter. Had the petitioners presented even a *prima facie* case for such a pension system the commission would have been only too willing to have heard the committee. The Finance Commission felt that it would be unfair to all other city employees at present unfavored by special pension provisions to allow one city department to set up a special pension system and to subsidize this fund by contribution from the public treasury. Equity demands that all city employees be treated alike.

The committee's comment on the collection of the fine money only serves to emphasize the opinion of the commission in its third objection, that library employees would more and more come to consider the fine money as distinctly library trust money and not general revenue belonging to the city and thus they would have a tendency to combat any attempt to reduce it.

Apart from the present financial stringency of the city, which would seem to prohibit it from embarking on any new financial expenditures such as the library pension system would entail, the commission is firmly convinced that there is a basic objection to allow one city department to retain moneys collected by it for the establishment or subsidization of a pension system for its superannuated employees.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE MAYOR
in relation to
THE PURCHASE OF NONASPHALTIC ROAD
OIL.

BOSTON, September 2, 1919.

HON. ANDREW J. PETERS, *Mayor*:

SIR,— The Finance Commission submits the following report of its investigation of the purchase of approximately 400,000 gallons of nonasphaltic road oil from M. P. Scullin, doing business under the name of the American Oil Products Company, and transmits herewith the report of its consulting engineer relative to the more technical aspects of the question.

On February 5, 1919, the supervisor of the Street Oiling Division of the Public Works Department requested the division engineer to ask for bids for 100,000 gallons of nonasphaltic road oil, to be used as a dust layer on water-bound macadam streets.

On March 1, 1919, the Superintendent of Supplies, at the request of the Commissioner of Public Works, advertised for 40,000 gallons of nonasphaltic oil, the advertisement in the *City Record* stating that the bids were to be received on specifications furnished by the city.

The form of bid supplied to those inquiring therefor contained a provision that the city would also receive bids for oil to conform with specifications furnished by the bidders.

The specifications furnished to bidders by the city contained extreme requirements not ordinarily found in distillates or residues of crude petroleum. It is perhaps not impossible to secure oil of the character specified. To do so, however, would require a special oil prepared from oil produced by some special area or

special methods of refining, or by a suitable mixing of distillates and residual oils. In any case such an oil would be very expensive and the high prices bid by the more responsible companies to the competition were undoubtedly on account of the difficulty and expense of securing oil approximating the oil required by the specifications.

The contract further provided that "the refiners must furnish an analysis from the shipping point of the contents of each car shipped. All shipments will be inspected upon delivery and such as does not conform to the requirements of the contract will be rejected."

The lowest bid received, 8.45 cents per gallon, came from M. P. Scullin, doing business under the name of the American Oil Products Company, on specifications supplied by him. He also submitted a bid of 11.75 cents per gallon for oil to conform with the city's specifications, and a third bid of 9.9 cents per gallon for oil to conform with other specifications furnished by him.

The contract was awarded to the American Oil Products Company on its bid of 8.45 cents per gallon, and an order was immediately given under it for five tank cars of oil. The city received 44,399 gallons under this order, more than the total quantity called for by the contract. The contractor under this order furnished four cars of the 8.45 cent oil and one car of 9.9 cent oil. The declared purpose of furnishing one car of the oil offered to the city at 9.9 cents at the contract price of 8.45 cents was to endeavor to satisfy the city officials of its superior quality, with the hope of selling the higher priced oil to the city. In this the contractor was successful, as he subsequently received orders for forty-two cars of the 9.9 cent oil.

The dates of the orders and the amounts thereof are as follows:

April 9, 1919, 5 cars	\$3,932 48
April 23, 1919, 6 cars	4,705 97
April 30, 1919, 15 cars	12,085 14
May 31, 1919, 4 cars	3,200 57

June 3, 1919, 2 cars	. . . . .	\$1,589 74
June 7, 1919, 2 cars	. . . . .	1,603 61
June 9, 1919, 2 cars	. . . . .	1,790 02
June 19, 1919, 3 cars	. . . . .	2,514 70
June 20, 1919, 2 cars	. . . . .	1,756 16
June 23, 1919, 1 car	. . . . .	779 03

All of these orders, except the last, were for amounts in excess of \$1,000. The Superintendent of Supplies stated that he was careful not to order more than one car of oil on each order blank, as to do otherwise would have violated the provision of the charter which requires public advertisement for bids for all supplies the estimated cost of which, alone or in conjunction with other similar purchases which might properly be included in the same contract, amounts to or exceeds \$1,000, unless the Mayor for reasons specifically given in writing authorizes the purchase without advertising. The Superintendent of Supplies did not obtain the authority of the Mayor to purchase this oil without advertising, and by his testimony before the commission showed that he resorted to a palpable subterfuge in splitting orders in an endeavor to keep the amount thereof under \$1,000. He admits that he knew that from 200,000 to 300,000 gallons of nonasphaltic oil would be purchased.

The Superintendent of Supplies testified that he ordered the 9.9 cent oil because Edward F. Murphy, the division engineer of the Public Works Department, informed him that it was the most satisfactory oil the city had ever used and that the 8.45 cent oil was unsatisfactory. Samples of both grades of oil were tested by a chemist employed by the Supply Department, who reported that the oil did not conform with the specifications. When the Superintendent of Supplies was given this information he replied that it did not interest him, as the Public Works Department reported that the oil was giving satisfactory results. This statement was corroborated by the division engineer of the Public Works Department, who testified before the commission

that from an examination of the streets on which this oil had been laid he believed that it was an excellent dust-laying oil, and that the 8.45 cent oil was unsatisfactory, as it "bleached out" very shortly after being spread on the streets and did not lay the dust but for a very short time. The Commissioner of Public Works also testified that the 9.9 cent oil has given satisfactory results.

The commission has had samples of the 8.45 cent oil and 9.9 cent oil furnished the city by this contractor tested by an expert chemist, who has reported that they are practically alike and under tests show no essential difference which would make one a good and the other a poor dust-laying road oil.

The chemist who made the tests for the Supply Department testified that any difference in nonasphaltic oils which would render one oil better than another as a dust layer would be shown by the tests and that the samples of the different oils furnished by the contractor and tested by him did not show them to be substantially different from each other.

The consulting engineer of the Finance Commission states that the tests made by the chemists employed by the Supply Department and the commission show that these oils were similar in character to the oils purchased by gas companies at 6.05 cents per gallon delivered.

The agent of the oil company admitted that the oil was of the grade known to the trade as gas or fuel oil, according to its use. Inquiry from several sources showed that the city could have purchased oil of this character for less than 7 cents a gallon.

The commission has examined the contractor relative to the sale of this oil to the city. He testified under oath that the specifications submitted with his bids were prepared by him from his general knowledge of the oil business but without any knowledge of what the oil which he intended to furnish would show if tested.

He made no attempt to supply an oil that would conform with his specifications. The 8.45 cent oil which he delivered under his contract was designated on the

bills to the city as "Paramount N. A. Oil," and the 9 cent oil was designated as "Liberty N. A. Oil." Both were purchased by him from the same oil company at the same price.

The last sixteen cars of oil which the contractor delivered to the city, though billed under the same designation, "Liberty N. A. Oil," as the previous twenty-seven cars of 9.9 cent oil, was, in fact, an oil which the contractor obtained from the same oil company at about two thirds of a cent less per gallon than the oil previously delivered to the city.

The contractor sent with the bill for each car a copy of the specifications which he submitted with his original bid of 9.9 cents.

The tests made of this oil show it to be of the same character as the oil previously delivered. This change, of which the city was not notified, will give the contractor an additional profit of over \$1,000, if the bills are paid as now made out.

The tank cars in which this oil is delivered have marked upon them the number of gallons they will hold when filled. The contractor received bills from the Boston office of the oil company from which he purchased the oil for the stated number of gallons in each car, together with a slip stating the marked capacity of the car and the number of gallons deducted or added on account of the oil being put into the car at a temperature higher or lower than 60 degrees Fahrenheit, the temperature at which, according to the usages of the trade, oil is measured and paid for.

The bills sent to the city by the contractor for the first fourteen cars are for the same number of gallons as that billed to him by the oil company. The next twenty-eight cars are billed to the city at the marked capacity of the cars, an increase of about 3,700 gallons over the amount charged him by the oil company.

The bills for the last five cars, which were received at the Supply Department after the commission began

its investigation of this matter, are for the same number of gallons as billed by the oil company to the contractor.

The contractor, when examined by the commission for the reason for this change in billing, stated that at the time he made out the bills for the first fourteen cars he did not know that the oil company intended to charge him for quantity on the basis of the capacity of the tank cars, which he claimed it did by four bills marked "Car Capacity," dated April 1, May 1, June 1, and July 1, 1919, which he exhibited to the commission and claimed to have received from the Boston office of the oil company shortly after the date on each bill.

He testified that he had paid no particular attention to the bills and had made no objection to them, though, due to a mistake which occurred on each bill, they amount to \$6,313.65, instead of \$631.36, but intended to dispute these bills for car capacity and if successful would give the city credit for any reduction that he was able to obtain from the oil company. He was unable to state any reason for the last five bills being for the same number of gallons as billed him, but thought it was a mistake or oversight.

His stenographer testified that she made out the bills to the city for the same number of gallons as charged on the bills from the oil company until directed by her employer to bill the city for the marked capacity of the cars, and that he stated to her that the reason for billing the cars to the city at marked capacity, rather than for the number of gallons billed by the oil company, was to make up a loss suffered on a car which he sold the city last year, but was unable to deliver, due to an error in shipment by the oil company which sent the car to the West and delayed its arrival in Boston until the season during which the city uses this kind of oil was past, so that he was obliged to pay \$246 for demurrage charges and was also obliged to resell the oil at a loss of \$200 or \$300 more. She testified further that she did not know why the last five cars

were billed to the city for the same number of gallons as charged by the oil company and that the first time that she saw the "car capacity" bills was some time in June, when she saw three or four of them on her employer's desk.

The manager of the Boston office of the oil company testified that the only charge made to the contractor was for the number of gallons stated on the original bills; that no charge was ever made for the number of gallons marked as the capacity of the car; that he had never before seen the "car capacity" bills, and that they did not represent any charge made by his office or the oil company for the oil shipped to the city on order of the contractor.

The bookkeeper at the Boston office of the oil company testified that she made out the bills to the contractor for the oil shipped to the city; that they were for the actual contents of the cars as shown by bills from the oil company; that she had no charge on her books against the contractor on the basis of the capacity of the cars; that the four "car capacity" bills which the contractor had left with the commission and which were shown to her were all made out by her at the same time, during the early part of July, 1919, at the request of one of the salesmen; that they were not made up from any entries on her book but from memoranda handed her by the salesman; that they did not represent any charge against the contractor, but were made out as memoranda at the request of the contractor for some purpose which she endeavored to find out but could not.

The salesman referred to by the bookkeeper testified that a few days after his return from military service on July 11, 1919, the contractor stated to him that he desired to get copies of some bills for the purpose of showing what he was paying for the oil, and accordingly he had some copies of bills made and brought them to the contractor, who stated they were not what he

wanted; that the contractor then gave him some figures on a piece of brown paper which he desired to have put on the billheads of the oil company and marked "car capacity"; that he had the bookkeeper put these figures on four billheads and they were either sent to the contractor or he called for them; and that he endeavored to find out for what purpose these bill forms were to be used but he was unable to do so.

The Commissioner of Public Works directed that the contents of all cars be measured upon arrival and the bills paid the contractor have been approved for the quantity reported by the engineer of the Public Works Department who measured them, except in three instances where the engineer reported the contents to be somewhat in excess of the marked capacity of the car. In these instances the bills have been approved for the marked capacity.

The unpaid bills for twenty-four cars have not as yet been finally approved for payment.

The commission finds:

1. That the specifications were not suitable to secure wide competition among bidders.
2. That these specifications caused the more responsible oil companies to submit unduly high bids in attempting to furnish an oil in general agreement with the provisions of the specifications.
3. That the provision of the specifications regarding the rejection of oils that did not comply with the specifications was totally disregarded, as the oil furnished did not in any particular comply with the original specifications or the two later specifications which the successful bidder was allowed to submit.
4. That the Superintendent of Supplies has intentionally violated sec. 30 of the charter amendments by purchasing, without the permission of the Mayor in writing, 350,000 gallons of oil at a cost of approximately \$34,000.

5. That the increase in the price paid the contractor from 8.45 cents per gallon to 9.9 cents per gallon was unwarranted, as there was no essential difference in the quality of the oil furnished as regards its value for dust laying as compared with the lower priced oil.

6. That the purchase of approximately 350,000 gallons of oil without proper authority was unwarranted, illegal, and caused a loss to the city of approximately \$11,500 as oil of the quality delivered could have been obtained for approximately 7 cents per gallon had bids been invited under specifications designed to secure the quality of oil that was accepted.

7. That the contractor made no attempt to supply oil that would conform to the specifications submitted with his bids.

8. That the contractor, with intent to defraud the city, billed the city for a greater number of gallons than he was charged for by the oil company.

9. That the contractor did not in good faith endeavor to perform his contract according to its terms, and that under well recognized rules of law he is not entitled to recover the contract price for the oil.

10. That the "car capacity" bills produced by the contractor were fictitious and were obtained after the commission began its investigation of his dealings with the city in an attempt to conceal his attempted fraud on the city.

The commission recommends:

1. That the Superintendent of Supplies be disciplined or censured for his violation of the charter provisions and for his failure to reject the oil, as provided by the terms of the contract, when he learned that it did not conform to the contractor's specifications.

2. That the unpaid bills of the contractor be corrected to conform to the actual quantities.

3. That the payment by the city to the contractor be made on the basis of the fair market value

of the forty-seven cars as shown by prices paid in this market for similar oils.

4. That the city make no further purchases from M. P. Scullin.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

APPENDIX.

BOSTON, August 26, 1919.

To the Finance Commission:

GENTLEMEN,— I submit herewith a report regarding the specifications under which approximately 400,000 gallons of nonasphaltic oil have been recently purchased by the city, together with the result of certain investigations regarding the physical characteristics of the oil furnished and used by the City of Boston. The matter of this report is based on my personal knowledge of the use of oil for dust laying, an examination of streets that have been treated with the oil in question, and physical tests made under my direction by two independent chemists.

Nonasphaltic road oil is used to a limited extent by cities in the metropolitan district, particularly by the City of Boston, for dust laying in the early season before the road surfaces have become sufficiently warm or the air temperature has become sufficiently high to get the best result for the asphaltic oil used later in the season. The use of the oil under such conditions cannot be fairly criticised, especially if the emulsified form of asphaltic oil cannot be obtained.

When nonasphaltic oil is placed on a previously untreated, water-bound macadam street it without question acts as a lubricant and assists in the disintegration of the street. When placed on a street that has been previously treated with asphaltic base oil it acts as a

solvent for the hard asphalt remaining on the street and is probably a benefit, if not too frequently applied.

Nonasphaltic oil, however, does not prevent the formation of dust on previously untreated streets. It does to some extent act as a coagulant, which makes the dust heavier and less likely to blow about under moderate winds. Under strong winds it is doubtful if the nonasphaltic oil is of material benefit. After rain streets treated with nonasphaltic oil are covered with a particularly dirty variety of mud.

On March 1, 1919, the Superintendent of Supplies of the city, after instructions by the Commissioner of Public Works, advertised in the *City Record* for bids for furnishing approximately 40,000 gallons of nonasphaltic road oil.

The essential points of the specifications submitted to bidders were as follows:

The oil to conform to the following specifications:

Gravity	34 Baumé
Flash point	350 degrees
Flame point	390 degrees
Viscosity	100 c., 100 F.

It is also provided that "the refineries must furnish an analysis from the shipping point of the contents of each car shipped. All shipments will be inspected upon delivery and such as does not conform to the requirements of the contract *will be rejected*."

The volatilization test usually included with the other tests outlined and generally regarded as one of the most essential tests is omitted.

The specification is a peculiar one and shows evidence of being prepared either by a person who has little knowledge of the character of road oil or intentionally to confuse prospective bidders. I believe it to be extremely doubtful if an oil of the character specified can be obtained from the usual output of any oil company manufacturing standard products.

For example, the provision for 34 degrees Baumé requires a very light oil, approximately the same as the

heavier grades of kerosene, whereas the provision for 350 degrees flash point and a flame point at 390 degrees indicates a heavy, nonvolatile oil. No indication is given if the flash and the flame points are to be measured in degrees Fahrenheit or degrees Centigrade. It may be assumed, however, that degrees Fahrenheit are meant.

The viscosity is to be measured at 100 degrees Fahrenheit. This is neither the standard used for road oil nor for lubricating oil. Ordinarily 70 degrees Fahrenheit is used as the temperature for viscosity tests for lubricating oil and 77 degrees Fahrenheit for testing road oil. There are several different instruments for making this test that give different results. The instrument generally adopted for road oil tests is the Engler instrument. The instrument commonly used for lubricating oil tests is the Saybolt instrument.

It may be possible by using special methods for manufacturers to produce an oil approximately complying with the specifications. For example, crude petroleum of a special quality might be secured, special methods of distillation used, or certain mixtures of distilled and residual oil might be mixed together. In any case the resulting oil would contain a large percentage suitable for lubricating oil. It would be very expensive and without any special merits for dust laying purposes over cheaper oils.

Notwithstanding the peculiarities of the specification, there is evidence that several of the oil companies made an honest attempt to comply with the greater number of its provisions and the high prices submitted were undoubtedly due to the difficulty of producing such an oil.

The bid of the American Oil Products Company was accepted on specifications furnished by the bidder, as follows:

Gravity	24 Baumé
Flash point	365 degrees
Flame point	325 degrees
Viscosity	100 c., 70 F.

Except that the figures of the flash point and flame point appear to have been transposed, and the viscosity, 100 c., should read 100 s., meaning seconds, the specification is a better one than the one furnished by the city. The attention of the commission is called, however, to the fact, as shown by the figures of the following tables, that no attention was apparently paid by the bidder either to the specifications furnished by the city or to his own specifications. Later a second specification was furnished by the contractor, to which as little attention seems to have been paid as to the one already quoted.

An examination of the documents in the case indicated beyond reasonable doubt that the oil which had been purchased was a distillate similar to that obtained in the distillation of petroleum between kerosene and lubricating oils. This product is known under various trade names, according to the use to which it is devoted. When used as an enricher for illuminating gas it is known as gas oil; when used for heating or steam raising purposes it is known as fuel oil.

The following table shows the results of tests on three grades of oil furnished:

OIL FROM THE AMERICAN OIL PRODUCTS COMPANY. (TESTS MADE BY BUTLER & HAYES, INC.)

	Car No. 1006. A. (Degrees.)	Car No. 925. A. (Degrees.)	Car No. 1009. B. (Degrees.)	Car No. 856. B. (Degrees.)	Car No. 872. SB. (Degrees.)	Car No. 1010. SB. (Degrees.)
Gravity (Baumé).....	29	29	27	28	30	29
Flash (Fahrenheit).....	210	210	190	198	240	240
Flame (Fahrenheit).....	244	244	258	266	284	278
Viscosity 100 degrees Fahrenheit (Saybolt seconds).....	59	56	47	47	49	49

These figures show the oils to have been substantially the same quality and that for all purposes of dust laying they are of approximately equal value. How widely oils of the same class may vary, as shown by physical

tests, is illustrated by tests of samples of gas oil taken from five gas companies in Massachusetts, which show the following extremes:

	Minimum.	Maximum.
Gravity Baumé.....	29	36
Distillation between 100 and 150 degrees Centigrade.....	.....	5 per cent.
Distillation between 300 and 350 degrees Centigrade.....	25 per cent.	92 per cent.

Peculiarly also, the oil that lost 5 per cent. of its weight at the lower temperature lost the least, or 25 per cent., at the highest temperature; while the oil that lost nothing at the lower temperature was the oil that lost 92 per cent. of its weight at the higher temperature.

These tests simply indicate that gas oils are composed of a mixture of components of different volatility and that there is no particular standard.

Mr. Scullin's denial that the oil was of the character stated made certain physical tests necessary in addition to those made by the firm of Butler & Hayes, Inc., at the request of the city.

The standard volatilization test, such as is used for road oil, was applied to all the oils to determine the evaporation when subjected to a temperature of 325 degrees Fahrenheit for a period of five hours. All of the oils showed a loss between 75 per cent. and 80 per cent. under this test and were volatilizing freely at the end of the tests. Had the test been continued for a short time all of the oils would have been completely volatilized. Low temperature evaporation tests were also made of the B and SB oils, by sprinkling the oils on a layer of stone dust and exposing the same to a temperature of 120 degrees Fahrenheit for seven days; 120 degrees is a temperature frequently exceeded on the street surface during the summer time. Under this test both of the oils lost substantially 4 per cent. in weight in the first twenty-four hours; thereafter of the one hundred sixty-eight hours, all of the oils lost at a uniform rate of

about one and one half per cent. in twenty-four hours, the total loss in seven days being approximately 14 per cent. No decrease in the rate of evaporation was indicated as the test progressed.

These tests confirm the opinion that the oils are all of substantially the same merit for dust laying purposes; also in addition to the reasons given earlier in this report that on account of their great volatility none of the oils are suitable or economical for dust laying purposes during hot weather. There is little doubt that the effect observed by Mr. Dawson, whereby the oil disappeared over night, was in part due to evaporation, although the high gravity Baumé and the low viscosity undoubtedly helped its rapid absorption by the street surface.

The satisfactory effect observed by Mr. Murphy, where the B and SB oils appeared to give the street surface a dark color for a longer period than the A oil, was undoubtedly due to the color of the oil, rather than any essential difference as a preservative and dust preventive. The effect observed was probably due to the different character of the original petroleum, or to the method of distillation, or to a combination of both. The A oil was apparently distilled from a paraffin or mixed base oil, with the object of securing the greatest possible proportion of lubricating oil.

The B and SB oils were apparently distilled from asphaltic base oils, by a method of distillation designed to crack up the heavier fractions in the oil and secure the greatest percentage of gasolene. By this method certain portions of asphalt came over with the volatile oil and gave the oil its darker color. The B and SB oils appear to be practically identical, the difference in properties being not more than might be expected from two batches of oil from the same still. The properties upon which Mr. Murphy bases his decision as to the superiority of the B and SB oils were more apparent than real, being due to the fact that more coloring matter was in the oils.

According to information obtained from a member of the Massachusetts Gas and Electric Light Commission, who has investigated the matter, the price of such oil has recently been 6.05 cents per gallon, as delivered to the gas companies in tank cars. There seems to be no question that had the city advertised with definite specifications for the type of oil that it received, it would have obtained the oil for less than 7 cents per gallon, delivered in Boston, with a saving of approximately \$12,000 in the total amount paid.

Respectfully submitted,

GUY C. EMERSON,
Consulting Engineer.

COMMUNICATION TO THE MAYOR
in relation to
THE PROPOSED PAYMENT OF A GRATUITY
TO THE WIDOW OF ROBERT HERTER.

BOSTON, September 4, 1919.

HON. ANDREW J. PETERS, *Mayor*:

SIR,— There is pending before Your Honor for approval ch. 68 of the Resolves of 1919, providing for the payment of money to the widow of Robert Herter, late a messenger in the Supreme Judicial Court for the County of Suffolk.

The facts in the case are as follows:

Mr. Herter was employed in the above capacity at a salary of \$2,160 a year, \$1,760 of which was paid by the county and \$400 by the Commonwealth. He died on January 25, 1919. The resolve, as finally passed, provides for the payment of four fifths of the gratuity by the County of Suffolk and one fifth by the Commonwealth.

If approved by you the widow of Mr. Herter would receive from the city treasury the sum of \$1,643, and if the city's share of the state payment is added it will amount to a gratuitous payment from the city of almost \$1,763.

The Finance Commission has reported often on these bills seeking special privileges and special gratuities from the city. In the present case it sees no reason to depart from its conclusion that gifts of money of the sort are not warranted in public morals.

The commission's views are fully set forth in its report of May 14, 1917 (Finance Commission's Reports, Vol. XIII., p. 83 *et seq.*), and in reports issued to Your

Honor during the last two years, in which the commission advises a rejection of the bills.

The commission feels that Your Honor has already adopted this sound policy of refusing to allow these special privileges to be granted, and now advises Your Honor to make no exception in this case.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE MAYOR AND CITY COUNCIL
in relation to
CLOSING THE HOUSE OF CORRECTION AT
DEER ISLAND.

BOSTON, September 6, 1919.

To the Honorable the Mayor and City Council:

GENTLEMEN,—The Finance Commission submits the following report upon the need for closing the House of Correction at Deer Island and the transfer of its inmates to state institutions, where they will be maintained with better accommodations and without charge to the city.

The recent declaration by the assessors of a tax rate of \$23.60, and the annual loss of \$1,000,000 in revenue formerly received from liquor license fees, combined with the pressing demands of municipal employees for higher rates of compensation, make it imperative that the municipal authorities find means of reducing municipal expenditures.

One instance where the city expenses may be cut down and the City of Boston relieved of a large expenditure lies in the discontinuance of the Deer Island House of Correction, where the present per capita cost of keeping the inmates exceeds the rate of \$1,000 a year. The adoption of this recommendation will effect a saving of approximately \$250,000 a year.

The average daily population of this institution, as shown by the following table, has fallen from 1,582 in 1904 to 379 in 1918 and to only 247 at the present time:

Year.	Average Daily Population, House of Correction.	Year.	Average Daily Population, House of Correction.
1904	1,582	1914	1,114
1908	1,463	1915	1,107
1909	1,484	1916	867
1910	1,204	1917	628
1911	1,100	1918	379
1912	1,092	1919 (September)	247
1913	1,037		

This decrease in the number of inmates is due to three causes, viz., the working of the probation system, unusual demand for labor in all industries, and national prohibition.

The probation laws have operated to relieve many persons from imprisonment who were formerly sent to the penitentiary. The great industrial activity and demand for labor of all sorts during and since the war have prevented idleness and lessened the criminal opportunities resulting from unemployment. The effect of wartime prohibition has been so marked as to assure definitely a great decrease in arrests and commitments to jails and houses of correction.

Since the beginning of prohibition on July 1, 1919, there has been a rapid decline in arrests and in the number of prisoners in jails, houses of correction and state institutions. The effect has not been local; it has been nation wide. Reports from all over the country, as well as from our own state and county authorities, show the remarkable results of prohibition. That the time within which national prohibition has been in effect is not too short to judge results is amply proven by the returns from other communities where state prohibition has been in force for some years. All these returns state emphatically that where prohibition has been adopted there has been such a decrease in the population of the penitentiaries that it has become necessary to close many jails.

Thus, Alabama has had prohibition since January 1, 1915, and the Governor of that state, Thomas E. Kilby, writes that the new city jail at Birmingham has been empty over a year and many county jails are without prisoners. The president of the city commission of Birmingham, Alabama, also reports "our main city prison with a capacity of 400 has been turned into a parental school," and the chief of police writes that the new jail has been abandoned and turned over to the juvenile court.

Kansas has had prohibition since January 1, 1881, and Governor Henry J. Allen reports that crime has decreased and jails in many counties have been entirely empty for a long period.

Indiana has had prohibition since April 2, 1918, and the chief of police of Indianapolis reports that the county workhouse has been abolished.

Michigan has had prohibition since May 1, 1918, and the mayor of Ann Arbor states that the jails of the city are practically empty.

Similar results are already found in Massachusetts and the state and county authorities are proceeding to close jails and concentrate prisoners in single institutions. Officials of the State Bureau of Prisons stated that all the jails and houses of correction in the state could be closed without harm, as the state prisons, reformatories and industrial camps could take care of all the sentenced cases. Progress in closing jails in some counties of Massachusetts is already under way.

Newburyport jail has been closed for almost two years. The jail at Lowell has also been abandoned and the officials and employees have been given until September 1 to close the institution. Its twelve prisoners have been transferred to the other county jail at East Cambridge. The following list shows clearly the small number of prisoners in the state and county institutions at end of last July:

	Capacity.	NUMBER REMAINING AT END OF JULY.		
		Males.	Females.	Total.
State Prison.....	842	526		526
Reformatory for women.....	320		312	* 312
Massachusetts Reformatory.....	1,027	435		435
Prison camps and hospital.....	Unlimited	199		199
State Farm (all departments).....	3,200	1,452	70	† 1,522
Barnstable.....	22	4		4
Boston (jail).....	303	109	19	128
Cambridge.....	363	121	23	144
Dedham.....	108	46	2	48
Deer Island.....	1,505	243	36	279
Edgartown (jail).....	12			
Fitchburg.....	173	53		53
Greenfield.....	66	11		11
Ipswich.....	144	7		7
Lawrence.....	122	44	3	47
Lowell (jail).....	102	19	4	23
Nantucket.....	10			
New Bedford.....	374	85	16	101
Newburyport (jail).....	42			
Northampton.....	88	12	1	13
Pittsfield.....	120	22	3	25
Plymouth.....	152	68	2	70
Salem.....	138	34	2	36
Springfield.....	268	117	10	127
Taunton (jail).....	66	15	4	19
Worcester.....	324	120	16	136

* Sixty of these are Federal prisoners, paid for by United States Government.

† September 2.

It will be seen that the state institutions have not nearly their normal quota of prisoners and that with the unlimited space in the industrial camps they could easily accommodate the inmates of all the county jails and houses of correction in Massachusetts.

The Finance Commission has been assured by the

authorities of Middlesex County that in the event of the prison accommodation of the Commonwealth being overcrowded at any time they would be willing to accept the transfer of Suffolk County sentenced cases to Middlesex Jail at East Cambridge, at a charge of 50 cents a day for each prisoner. At the present time the need for help is so urgent that they would accept the transfer of a substantial number of prisoners without charge for their maintenance.

Moreover, the present low population at Charles Street Jail would permit of the transfer to it of many of the 247 Deer Island prisoners.

The normal capacity of Deer Island is 1,505 prisoners, and in some years this has been exceeded. The present (September 4, 1919) population of 247 is divided as follows:

Men	221
Women	26

This small number is hardly sufficient to run the institution properly and if the number is not rapidly augmented, or if a further decline occurs, the question of even maintaining the institution without the employment of outside help will become acute. In this connection it is well to point out that a law recently passed provides that prisoners sentenced to a term of more than two and one half years must be committed to the State Prison or Concord Reformatory and not to houses of correction. This law takes effect on February 1, 1920, and will have the effect of still further decreasing the population at Deer Island. It is expected that the number may be reduced to 150, unless a wave of crime or serious disorder should occur.

The officials of the State Bureau of Prisons believes that to maintain the institution at Deer Island and to operate its farm and industries efficiently and properly at least 400 inmates are necessary and that with the present number of inmates the institution is seriously handicapped. The embarrassment in which the institution finds itself at the present time is so great that

the Penal Commissioner is about to close several of the buildings and transfer the male population to the women's prison building, where there are modern prison facilities. The women will be transferred to a smaller and separate building.

The annual expenditure of the Penal Institutions Department, exclusive of special appropriations for building and repairs, is approximately \$290,182 (excluding its proportionate share, one third, of the expenses of the steamer "Monitor," which cost last year to maintain \$50,887.15), based on the average for the last five years.

The pay rolls of the department number 100 persons, of whom 90* are employed at Deer Island, the remaining 10 being the office force in the city. As there are only 247 prisoners at the island and there are 100 persons on the department pay roll the number of prisoners to each employee is about 2.4. As the normal number per employee was formerly about 12, it is readily seen that the department is carrying a large number of superfluous employees.

The Penal Commissioner is trying to remedy the situation by retiring on pension three employees, but such a measure relieves only in a slight degree the unnecessary burden which the taxpayers of Boston are bearing.

During the present fiscal year an appropriation of \$276,903.36 was made, and in the first six months of the year the department has spent \$129,163.56. If it continues this rate of expenditure for the remaining six months it will total \$258,327.12, or only \$16,600.37 less than was spent last year, despite the fact that the average daily population will probably be over 100 less than last year.

This large expense is due to the unnecessarily large pay roll, which, instead of being reduced as the number of prisoners began to shrink, was increased by additions to the pay roll during the administration of Mayor

*Three are clergymen and two have been detailed for temporary summer work with the Randidge Fund, but have not returned to the department.

Curley, thirty of the present employees having been employed by the department for the first time during his term (twenty-three appointed while the department was outside of civil service) and by constant increases in salaries. The estimated annual pay roll of the House of Correction for the present fiscal year amounts to \$101,118.26, and that of the office amounts to \$18,198.60, a total of \$119,316.86. The office pay roll is largely supervisory and could be reduced.

A tabulation which appears in the appended table shows the relative growth in the number of employees and the cost of conducting the department and the industries at the island. The table shows that as the population and the income from the industries decreased the number of employees increased, together with the cost of conducting the island industries. Curbstone cutting was once one of the principal industries at the island, but the number of inmates is now so small that all available men are needed to work on the farm.

STATISTICS OF THE PENAL INSTITUTIONS DEPARTMENT.

YEAR.	NUMBER OF EMPLOYEES.				Number Inmates per Employee.	Yearly Maintenance Expenditures.	Expenditure for Machinery and Material for Industries.	Income for Industries.
	Office.	Institutions.	Industries.	Total.				
1904....	10	116	6	132	12	\$268,952 33	\$54,166 95	\$42,651 02
1908....	11	114	5	130	11.3	273,439 72	57,934 49	52,242 12
1909....	11	118	6	135	11	299,250 12	51,876 08	65,127 69
1910....	10	120	6	136	9	256,154 59	32,401 52	44,647 14
1911....	11	130	7	148	7.4	266,005 28	33,810 28	35,090 96
1912....	11	138	7	156	7	301,137 86	22,898 55	20,105 78
1913....	11	136	6	153	7	284,132 60	21,308 05	22,863 19
1914....	12	142	4	158	7	305,819 00	12,655 82	15,992 86
1915....	10	154	3	167	6.6	316,640 58	10,511 86	12,668 57
1916....	15	152	3	170	5.1	277,321 34	14,341 27	16,512 91
1917....	14	146	3	163	4	276,203 39	9,867 77	10,662 79
1918....	* 15	† 122	4	141	2.6	274,927 49	6,358 41	3,976 18

* Figures as of April 30, but reduced to 10 when Commissioner Bates took office.

† Figures as of April 30, but reduced to 97 when Commissioner Bates took office.

It will be noted that last year there was an actual loss of \$2,382.23 in the industries account and that this activity, instead of showing a profit to the city, as state activities do to the Commonwealth, is actually costing the city a substantial sum.

The director of the State Bureau of Prisons states that owing to the small prison population in the institutions under state control it will be necessary to close some of the farm and industrial camps, which are located near state institutions and which provide them with the necessary kitchen and farm help, unless transfers are made from the county institutions, as authorized by law.

The prison authorities of the Commonwealth are anxious to transfer the inmates at Deer Island to state institutions, where they are needed to carry on the industries and other activities (which last year showed a profit of \$300,000 to the state), as, due to the same causes, the population of these institutions is at the present time so low that it is difficult to harvest the crops at the State Farm and furnish help to assist in the maintenance of other state institutions.

The transfer of the present inmates of Deer Island and the direct commitment by the courts to the state institutions of those hereafter sentenced will not increase the state expenditures and will entirely relieve Boston of the expense of their maintenance, as no charge is made by the state for the care of persons sentenced in Suffolk County and committed or transferred to state institutions.

OBJECTIONS TO THE TRANSFER.

One of the objections which may be urged against the abandonment of the Deer Island plant will be the discharge of the employees of the department, many of whom, it may be claimed, have grown old in the city's service. The commission recognizes the humanitarian appeal underlying such an objection, but desires to point out that the employees of the Suffolk House of

Correction have a distinct advantage over the employees of other counties. When the institutions of the latter are closed the employees are forced to seek other employment because they are not under civil service, but the employees of the House of Correction* and the Penal Institutions office are under the civil service law and consequently have all the protection which the civil service law affords. If the institution is closed the employees will be placed on a special civil service list, which will afford them opportunities for appointment to city or state departments. Furthermore, it is not true to claim that the employees of the Penal Department are old employees of the department, as only 25 of the 100 have been there over 10 years. The remainder, or 75 per cent., have been there less than 10 years, 30 of the latter group having been appointed within the last 5 years. The larger number of the employees of the department is therefore composed of comparatively recent appointments.

Another objection which may be made to the transfer is that the City of Boston should have jurisdiction over its prisoners and should retain them in penitentiaries under its direct control. The commission believes this argument to be untenable, because the prisoners are primarily the wards of the state as, in the majority of cases, they have broken state laws and have been brought into court on the complaint of the Commonwealth. Prison authorities throughout the country believe that the relation of the state to its offenders is such as to call for control by the state over all prisoners and penal institutions. Returns from Deer Island show that of the present population of the House of Correction, 199 offenders were from Boston, 23 were from communities outside Boston but within Massachusetts, and 33 were from other states. Therefore the county supports without reimbursement 56 nonresidents, or approximately 22 per cent. of the total number

* By ch. 116 of the Special Acts of 1915; the office division is a city department.

of prisoners. It therefore is not correct to claim that all of the Deer Island cases are properly the charges of the city.

It has been said that no attempt to reform the prisoners is made at the state institutions and that the economic results of requiring the men to labor on state roads or in state institutions is the main object of the Bureau of Prisons. The commission has investigated three institutions under the control of the state authorities, viz., Concord (Reformatory), Bridgewater (State Farm), and Rutland (Prison Camp). In the Concord institution it found young men of the average age of 21, who are taught various trades, such as cloth weaving, carpentry, plumbing, shoemaking and chair caning. These industries are being carried on under the direction of paid instructors. The equipment is thoroughly modern and of the most improved type. School classes under competent instructors are conducted four evenings a week, and the men obliged to enroll in them if they have not completed a grammar school course. A day school for illiterates is also maintained at the Reformatory. Only recently has an attempt at school instruction been made at Deer Island, and the mechanical devices used in the industries are obsolete and inadequate. In those state institutions where older men are sent and where the terms of imprisonment are shorter than at Concord, the physical upbuilding of the men is attended to by assignment of work on the farm, in the institutions and on the state roads. At both the State Farm and the Rutland Camp the prisoners are working in the fields or in the kitchens of the institutions and are allowed freedom from restraint by walls and armed attendants.

The commission believes from its examination of these state and city institutions that the accommodations provided by the state are much superior to those at Deer Island. The buildings at the latter, even the new women's prison, which is of a later type of prison

building, do not compare favorably with the layout or upkeep of the state institutions. To point out one of the many inequalities in the women's prison building at Deer Island the cells are windowless, ventilation being provided through a grated door from a window in the corridor which runs along the cells. Although wash sink and toilet accommodations and electric lights are provided, part of the front of each cell is a blank wall, which tends to darken the interior. The appearance is distinctly that of a punitive establishment.

Bridgewater, however, has cells so arranged that each has a window overlooking a grassy quadrangle and the front of the cells is provided with an openwork iron door, and the adjoining front wall is pierced with a window, so that ventilation can be received from the quadrangle, or from the many windows of the corridor upon which the cells open. Modern toilet facilities and individual lighting system are provided in each cell. In the camps the prisoners sleep in large, airy dormitories.

Another inequality between Deer Island and the state's institutions lies in the dining rooms. In the former the old institutional idea of long narrow tables, ranged in rows the length of the building, exists; whereas in the farm and industrial camps under the control of the state the individual table for six has been adopted, thus preserving at least a semblance to home life.

Beside the main camp at Rutland, there are five other camps in various parts of the state. Four of these camps are situated near the metropolitan district, viz., North Reading, Framingham, Medfield and Tewksbury, so that no objection can be made on the ground that the inmates would be removed to locations difficult of access for visitors.

It is also to be noted as an important factor in state control that prisoners in camps are entitled to parole at the expiration of one half of the remainder of the term of sentence at the time of transfer. Should the Board of Parole not see fit to release at that time the prisoner has the definite assurance of ten days a month deducted

from his term for each month of good behavior, while the allowance to the inmates of the county institutions is only from one to five days per month, depending on the length of sentence. Moreover, in the event of parole, the prisoner during his term of parole is under careful supervision by the Bureau of Prisons. The Bureau of Prisons also maintains a home department, by which the families of prisoners are aided during the incarceration of the prisoners and also has at its disposal a large sum of money, appropriated annually by the state for aiding discharged prisoners. This fund is used to provide clothing, board and lodging for a short period after release, and transportation for the prisoner to his home at the time of discharge.

Escapes are not frequent from the prison camps, and last year only exceeded by two the total escapes from all the county institutions of the state. The Bureau of Prisons has furnished the following list, showing the escapes from state institutions and from county penitentiaries during the last year (September 30, 1918):

COUNTY INSTITUTIONS.		STATE INSTITUTIONS.	
Boston Jail	1	Concord	7
Fitchburg Jail and House of Correction	10	Prison camps	17
Lawrence Jail and House of Correction	1	Prison Hospital (tubercular)	7
Lowell Jail	1	Reformatory for Women	1
New Bedford Jail and House of Correction	1		
Northampton Jail and House of Correction	1		
Pittsfield Jail and House of Correction	1		
Salem Jail and House of Correction	1		
Worcester Jail and House of Correction	13		
	<hr/> 30		<hr/> 32

Escapes from state institutions, as may be seen, are not very many, especially from the six prison camps, where almost complete freedom in moving about the unguarded grounds is allowed, because if the prisoner is

caught he is returned to his place of commitment to finish his unexpired sentence and is then tried and resentenced for a term of years for his attempted escape. As a consequence the men seek to earn good credits in order to shorten their terms of confinement.

The commission talked with many prisoners at the state institutions and found they would prefer to remain at the state institutions, as the housing and working conditions were much better than at Deer Island and the food was more varied and plentiful. This is borne out by a comparison of the menus of the state and city institutions.

The commission is informed by the Director of Prisons that the State Bureau of Prisons, acting under the authority of Revised Laws, ch. 225, is willing to transfer all the inmates of the House of Correction at Deer Island to state institutions and will maintain them at the state institutions without expense to the city.

The transfer to the state of jurisdiction over the House of Correction inmates is in line with the policy adopted in 1908, when the state took over the control of the City Insane Asylum, to the great benefit of those committed to this institution, beside relieving the city of an independent expenditure.

The transfer will necessitate the employment of a few persons at Deer Island for upkeep of the buildings and also the retention of a parole officer at the city office, in order to care for the work of paroling prisoners from Charles Street Jail.

The statutes require that each county maintain a house of correction. In all the counties except Suffolk the county jail is also designated as the house of correction and prisoners are sentenced to these institutions, in addition to their use as places of detention for prisoners awaiting trial or sentence. Until the law is changed each county will have to maintain a penitentiary. This requirement in the law prevents the closing of all penitentiaries in other counties of the state.

The Charles Street Jail is also used in the same manner, although at the present time it is not designated as a house of correction. Forty of its inmates are serving sentences and ninety are awaiting trial or sentence. As Revised Laws, ch. 224, sec. 8, requires each county to provide a house of correction, it will be necessary for the County Commissioners to designate the Charles Street Jail as the House of Correction if the institution at Deer Island is closed.

If Deer Island is closed it is possible that the state may take over the institution as a location for the new state prison. The old prison at Charlestown will undoubtedly be shortly abandoned and a new location selected. A commission appointed under ch. 50 of the Resolves of 1919, consisting of the director of the Massachusetts Bureau of Prisons, the warden of the State Prison and the superintendent of the State Farm, is at present studying the question of using the buildings at the State Farm at Bridgewater as a state prison. The attention of this special commission might be called by the Mayor to the use of Deer Island for the purpose of a state prison, and thus afford the City of Boston an opportunity to sell the island to the Commonwealth.

In the event of the closing of Deer Island, the pending ordinance providing for a consolidation of the Infirmary, Institutions Registration, Children's Institutions, and Penal Institutions Departments should be so amended as to provide for the commissioner a \$5,000 salary, instead of \$7,500, as the large part of the work of the new commissioner will be eliminated.

In submitting this report on the abolition of the House of Correction, the commission wishes to state that nothing contained herein should be construed as a criticism of the present commissioner of the Penal Department. The commission feels that Commissioner Bates is endeavoring to conduct the department intelligently and economically.

The commission is convinced, however, that the interests of the taxpayers and the welfare of the inmates require that the institution be closed, and that greater good will result both to the city and to the inmates if the inmates are transferred to the state authorities. Penal reform is, after all, not a local but a state question and can be handled best by a central authority.

The commission recommends:

1. That the Mayor instruct the Penal Commissioner to transfer to state institutions the inmates at Deer Island.
2. That the House of Correction at Deer Island be closed.
3. That the Charles Street Jail be designated as the House of Correction for Suffolk County.
4. That the Mayor present to the special commission, appointed under ch. 50 of the Resolves of 1919, the question of the purchase of the Deer Island institution for its use as the state prison.
5. That the pending ordinance for the consolidation of the Infirmary, Penal Institutions, Children's Institutions and Institutions Registration Departments be amended so as to provide a \$5,000 salary for the new commissioner, and that the office of deputy commissioner be abolished.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

SECOND COMMUNICATION TO THE MAYOR AND CITY
COUNCIL

in relation to

CLOSING THE HOUSE OF CORRECTION AT
DEER ISLAND.

BOSTON, September 10, 1919.

To the Honorable the Mayor and City Council:

GENTLEMEN,—The Finance Commission submits the following reply to the statements made by Sanford Bates, Esq., Penal Institutions Commissioner, in his public letter addressed to His Honor the Mayor on September 8, 1919, in reference to the closing of the House of Correction at Deer Island.

1. The appropriation for the House of Correction at Deer Island and its city office, which the Penal Commissioner stated at the budget hearings before the City Council was the lowest amount sufficient to maintain the institution for the present year, is \$276,903.36. The Penal Commissioner stated to the Finance Commission that on September 4, 1919, there were 247 inmates at the institution. This is the information on which the Finance Commission made its statement that the present per capita cost exceeds the rate of \$1,000 a year.

2. The Penal Commissioner states that the closing of Deer Island would effect a saving of not over \$150,000 a year. The average of the appropriations for Deer Island for the last five years is \$290,182. If the commissioner is right in his estimate of the saving and the Finance Commission wrong, it is submitted that \$150,000 annually is worth saving.

3. The Penal Commissioner states that the average daily population for 1919 will be something over 300.

The Finance Commission did not state in its report that the average daily population for 1919 was 247. The report states that there were 247 inmates on September 4, 1919. This is immaterial, for reasons hereinafter set forth.

4. The Finance Commission in its report made the following statement as to the present administration of the institution:

In submitting this report on the abolition of the House of Correction, the commission wishes to state that nothing contained herein should be construed as a criticism of the present Commissioner of the Penal Department. The commission feels that Commissioner Bates is endeavoring to conduct the department intelligently and economically.

5. The Penal Commissioner charges the Finance Commission with unfairness in its statement of the number of employees in the department and states that the number of employees has been reduced from 170 to 97. The statistical table on page 6 of the Finance Commission's report shows that on April 30, 1916, the employees at the institution and in the office in Boston numbered 170, and on April 30, 1918, 141. The report also states that the total number of employees was 122 when Commissioner Bates took office. The total number of present employees is 100, as stated in the report of the Finance Commission, unless the application for the retirement on pension of 3 employees has been acted upon favorably by the State Bureau of Prisons since the date of the report of the Finance Commission.

6. The Penal Commissioner states that the state authorities have returned many prisoners to Deer Island because they proved unmanageable at the prison camps, and inquires what would be the result if the Deer Island institution were closed.

The answer is simple. They would be transferred to a suitable institution now under state control, either the Reformatory at Concord or the State Farm at Bridgewater.

The Penal Commissioner quotes the provisions of sec. 81 of ch. 225 of the Revised Laws, but does not state that under the provisions of the succeeding sections the state authorities have full power to transfer prisoners from state or county institutions to any other state or county institution, as they may deem proper.

7. The Penal Commissioner states that there were 199 more criminal cases in the Central Municipal Court in August, 1919, than in August, 1918. The clerk of that court has given the commission the following report as to the number of cases in the Central Municipal Court for those months.

	1918.	1919.
Criminal cases.....	1,139	955
Drunks.....	3,106	795

8. The Penal Commissioner inquires what would be done in case of serious outbreak that might largely increase the number of prisoners to be provided with accommodation. The prison accommodations of the Commonwealth are so largely in excess of the present prison population that it is difficult to foresee a situation that would render them inadequate. If such should happen, prisoners could be committed to neighboring county institutions, as stated in the report of the Finance Commission, at a per diem expense of 50 cents per capita. The prison authorities of the state are willing to accept all the present inmates of Deer Island and all future commitments of Suffolk County offenders.

9. The Penal Commissioner states that a more constructive report would have been for the Finance Commission to recommend that other counties close their institutions and transfer their inmates to Deer Island.

The jails at Newburyport and Lowell have been closed. As there were on August 1, 1919, but 4 inmates at Barnstable, 7 at Ipswich, 11 at Greenfield, 13 at

Northampton, 19 at Taunton, 25 at Pittsfield and 36 at Salem, it is quite likely that other county penal institutions will be closed as soon as legislation is passed repealing the statutory requirement that each county maintain a penal institution. This statutory requirement does not prevent the closing of Deer Island, because the jail can be also designated as the House of Correction. This is done in several of the counties.

Moreover it is not the province of the Finance Commission to recommend reforms in the administrative affairs of counties other than Suffolk.

10. The Penal Commissioner does not claim that the prison accommodations at Deer Island are superior to those of the state institutions, or that the work of reformation of the inmates can be better accomplished there than at the state institutions.

At the present time it is impossible at Deer Island properly to classify and segregate drug addicts, inebriates, sex perverts and hardened criminals from first offenders, thereby diminishing the possibilities of reformation. This could be much better done if the inmates were transferred to the state institutions. In addition, they could be profitably employed at the farms and in the industries which are conducted with modern appliances in well equipped and sanitary shops.

11. The present prison population of the state institutions is very low and their accommodations are sufficient to take care of more than twice the number of the present inmates of all county penal institutions, including Deer Island, without increasing the cost of the maintenance of the state institutions.

12. The recommendation of the Finance Commission that the Mayor request the special commission, appointed under ch. 50 of the Resolves of this year, to investigate the suitableness of Deer Island as a location for a new state prison is based upon the fact that the State Prison is a place for felons and hardened criminals. The Finance Commission in recommending that Deer

Island be offered as a proper institution for a state prison did so in the belief that its buildings are suitable for the confinement of the type of prisoners committed to State Prison.

13. The situation may be put as follows: If a large business corporation had factories at different locations, all being operated at less than 50 per cent. capacity, and it was found that one factory costing more than \$250,000 a year to operate could be closed and the work there done performed at the other factories without increasing the cost of their operation, would the corporation close the factory that was costing \$250,000 annually or would it continue to operate this unnecessary factory at a loss of \$250,000 a year?

As earlier stated, the Finance Commission believes, and so stated in its report, that Mr. Bates is endeavoring to administer the institution intelligently and economically.

The recommendation that it be closed is based upon the belief that its further maintenance is unnecessary and that its closing will materially reduce municipal expenditures and will increase the possibilities for the reform of its inmates.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE MAYOR AND CITY COUNCIL
in relation to
ABOLISHING THE OFFICE OF CLERK OF
COMMITTEES.

BOSTON, September 20, 1919.

To the Honorable the Mayor and City Council:

GENTLEMEN,—The Finance Commission submits the following report on the possible economy of \$2,800 a year by the abolition of the office of Clerk of Committees:

The former Finance Commission on February 29, 1908, recommended the immediate abolition of the department of Clerk of Committees and Clerk of the Common Council and that their duties be transferred to the City Clerk and City Messenger Departments. This recommendation was not accepted by the City Council.

The charter amendments of 1909 abolished the office of Clerk of Committees and of Assistant Clerk of Committees "for the express purpose of saving the city the cost of their maintenance." (Boston Finance Commission's Reports, Vol. VI., p. 35.)

These offices were in effect re-established by vote of the City Council on February 6, 1911, under the provisions of sec. 1 of the 1909 charter amendments, which authorized the City Council, with the approval of the Mayor, "to establish such offices, other than City Clerk, as it may deem necessary for the proper conduct of its affairs."

The principal duties of the Clerk of Committees are to inform the members of the City Council and other interested persons of committee meetings and to attend

the meetings of the committees of the City Council. Prior to 1914 the Committee on Claims of the City Council gave numerous hearings to claimants who petitioned for compensation for injury to person or property. This work was in May, 1914, transferred to the Law Department, with the result that a large part of the work formerly done by the Clerk of Committees is now done by the Law Department.

The work of the office is largely routine and clerical in character. The clerical work is not extensive, as is evidenced by the fact that the record of all claims filed with the Committee on Claims of the City Council between 1913 and 1918 is contained in a book of about 400 pages, and the record of orders introduced in the City Council since 1914 is contained in a book which, from the number of entries now made, will be sufficient to contain a record of all orders introduced for some years to come.

The present seems to be an opportune and proper time to abolish this office, as it is now vacant and its abolition will not require the discharge of a city employee.

The commission believes that the duties of the Clerk of Committees can be adequately performed by the City Clerk, Assistant City Clerk, and the present Assistant Clerk of Committees, who is also secretary to the City Council.

It is to be noted that the compensation of the City Clerk was on January 1, 1918, increased from \$5,000 to \$6,000; that of the Assistant City Clerk from \$3,800 to \$4,500; the salary of the Assistant Clerk of Committees and secretary to the City Council was on January 1, 1919, increased from \$2,000 to \$2,200, and that therefore the slight additional duties cast upon these officials by the abolition of the office of Clerk of Committees would not be a hardship on them.

The commission recommends:

1. That the position of Clerk of Committees be not filled.

2. That ch. 11 of the Revised Ordinances of 1914 be amended by adding after the word "council," in the sixth line of the first section, the words "and of the committees of the city council," so that it shall be the duty of the city clerk "to attend all meetings of the city council and of the committees of the city council and keep records of such meetings."

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE MAYOR AND CITY COUNCIL
in relation to
THE PROPOSED ALTERATIONS AT THE
CHARLES STREET JAIL.

BOSTON, October 18, 1919.

To the Honorable the Mayor and City Council:

GENTLEMEN,— The Finance Commission has, in view of the bids received for the proposed alterations at the Charles Street Jail, re-examined the necessity and wisdom of expending approximately \$250,000 for alterations which will in part provide a small hospital, a recreation hall and dining room, and better receiving quarters for the inmates. The alterations require the demolition of the sheriff's residence.

The bids obtained on the recent advertisement for this work range from \$222,828 to \$289,763. The question for the necessity of these improvements has been agitated for several years. In 1917 a loan order for \$132,500 was passed by the City Council and approved by the then Mayor. The issue of the bonds was not then authorized.

Early this year the commission employed an expert on prisons to examine conditions at the jail and the plans for the proposed alterations, who reported that certain conditions at the jail needed correction; that the plans were well conceived, and should be accomplished for \$150,000, and that national prohibition — which was then impending — would not substantially reduce the prison population. His most serious criticism of existing conditions at the jail was the absence of sanitary accommodations in the cells.

The bucket system now in use at the jail is obsolete and insanitary, and undoubtedly should be corrected

if the financial condition of the city, in view of the many present demands upon it for increased expenditures, permitted and the permanence of the institution is assured.

Under the present administration the buckets are cleaned once in every twenty-four hours. The expert of the Finance Commission reported that under a change in the system the buckets could be cleaned two or three times a day.

The sheriff has obtained an estimate of \$60,000 for the installation of sanitary accommodations in each cell, which he recommends be done in sections so that the entire cost would not come during any one year. It is to be noted that the present plans do not include this improvement, nor is its cost covered by the amount of the loan now requested, so that the installation of proper sanitary accommodations will add at least \$60,000 to the proposed expenditure.

The sheriff also has in mind other improvements and alterations to the interior of the jail, for which estimates aggregating about \$40,000 have been obtained. These figures do not include the cost of a new residence, which is not now requested by the sheriff, but which under the law must be provided, if the law requiring residence of the sheriff at the jail is observed.

It is therefore apparent that the cost of the improvements and alterations contemplated by the sheriff, and necessary if the provisions of the law are complied with, will under an approximate estimate probably amount to about \$400,000. The commission believes that these improvements and alterations are not imperative and that under existing conditions it would at this time be an unwise expenditure of the taxpayers' money, and for the following reasons:

1. National prohibition and the extension of the probation system, as pointed out in the recent report of the Finance Commission recommending the closing of the House of Correction at Deer Island, are rapidly

reducing jail and prison population, with the result that many jails are being closed.

2. State control of penal institutions has been urged for several years by the best prison authorities throughout the country. This movement will undoubtedly receive a great impetus by the diminishing prison population which in the event of state control would permit the consolidation of the several county jails. In such event the Charles Street Jail might be abandoned, or consolidated with the jail at East Cambridge; or a new jail constructed in accordance with modern prison ideas, with a large yard room for prisoners, which is impossible at its present location. The commission appreciates that this change may not come at once, but is of opinion that it is of sufficient probability, taken with other objections, to render the expenditure of \$400,000 unjustifiable.

3. Many well informed persons who are interested in prison administration believe the present location of the jail is bad, as it is impossible to provide liberal yard room for the prisoners.

4. The Massachusetts General Hospital has under consideration the extension of its facilities, and the jail premises would afford the hospital the best opportunity for such extension. If state control is adopted and the Charles Street Jail consolidated with the Cambridge Jail, or a new location is recommended, the city could undoubtedly obtain a very large sum from the sale of the jail premises, which would not be increased by the expenditure of \$400,000 for the proposed improvements.

5. The jail is clean and well kept. There has never been an epidemic among its inmates due to insanitary conditions. The sheriff has provided an exercise yard for the male inmates, which is in use for a portion of the day. It would seem that it could also be used by the women inmates as an exercise yard at other periods of the day. If this were arranged, one of the objections to the present layout would be substantially overcome.

6. The most serious objection, the bucket system, could be relieved in any one of several ways at small or practically no expense. The commission quotes the following from the report of its expert:

It would be feasible to install a toilet room on each tier of each block. This could be done either by utilizing one cell on each tier in which proper plumbing could be installed, or by erecting of concrete block or brick in the several corridors at the rear end of each cell block, a structure with a toilet at each floor level. This would cost approximately \$5,050. The toilets could be installed in the end cell of each floor of each tier, at a considerably less cost, but there is urgent need for all cells for occupancy. One or the other of these plans should be carried out in order to abolish the bucket system.

If the bucket system is maintained and electric bells installed in each cell the attendants could be notified when it was necessary to empty and clean the buckets.

The tax rate for the present year is \$23.60, which constitutes a great burden upon the taxpayers, and seriously hampers the industrial and commercial progress of the city. The demands of the municipal employees for higher compensation and the greatly increased cost of supplies and materials will increase the present rate substantially, unless the strictest economy is observed in every department.

The voters will be requested at the state election on November 4 next to adopt the two-platoon system for firemen. This system will, if adopted, increase the present cost of the Fire Department half a million dollars annually. The municipal pay roll, including county and schools, for the month of September, 1919, totals \$1,663,-822.48, which would amount to over nineteen and one half million dollars a year. City employees are requesting increases which, if granted even in part, will necessarily further increase the tax rate.

The recent large increases in rents of houses and apartments of all types are laid by the owners in large part to the increase in the tax rate of the last two years, so that increases in municipal expenditures will inevitably increase the expenses of all the people in the community.

The money for the projected improvements and alterations can only be obtained by the issue of bonds, the money for the interest on and redemption or payment of which can only be obtained through the tax levy.

The commission, in its former report recommending the issuance of the bonds for the improvements at this institution, appreciated that the conditions at the jail needed correction and that the changes and improvements requested by the sheriff were desirable, and for those reasons recommended that they be accomplished by an expenditure of \$150,000.

The commission, in the light of the bids received for the alterations and improvements and the great cost of other improvements not included in the present plans, the total being greatly in excess of the original estimates, believes that these expensive alterations and improvements should not be made at this time, because of the present high tax rate, the demand of all classes of municipal employees for larger rates of compensation, and the almost inevitable increase in the tax rate.

The commission believes that the proposed improvements, though desirable, are not so imperative as to justify the expenditure of the large sum necessary at this critical time in the financial situation of the city. It also believes that a comprehensive study should be made of all the penal institutions of the county before investing so large a sum in the present jail, which at best will be only patchwork and may become valueless if the present structure should be torn down.

The commission, for the reasons above stated, recommends:

1. That the additional loan of \$140,000 be not authorized.
2. That the loan of \$132,500 already issued be not expended.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE MAYOR
in relation to
THE ESTABLISHING OF A TWO-PLATOON SYSTEM IN THE FIRE DEPARTMENT.

BOSTON, October 21, 1919.

HON. ANDREW J. PETERS, *Mayor*:

SIR,— At the state election on November 4, 1919, there will be submitted to the voters of Boston the following question:

Shall an act passed in the year nineteen hundred and nineteen, to provide for the division into day and night forces of permanent members of fire departments, known as the two-platoon system, be accepted?

If it is voted upon affirmatively by a majority of votes cast on the said question the city's Fire Department must be divided into two platoons on February 2, 1920.

The foregoing statement of the proposition as it will appear upon the ballot does not indicate either the significance or the importance of the question to be voted upon. The Finance Commission therefore believes that the citizens of Boston should be adequately apprised of the cost which this system will fix unalterably upon them, for once the act is accepted it will be practically impossible to repeal it.

The act is commonly known as the two-platoon act. It provides for a division of the permanent members of the fire-fighting force of the city's Fire Department into two shifts, one for day and one for night, the two forces alternating every third day. The fire-fighting force includes the officers as well as the privates and consequently the acceptance of the act may entail a double

set of officers, as shown on Plan IV., attached hereto, as well as a large increase in the number of privates in the department.

The system proposed by the act is as follows:

(1) Division of the fire-fighting forces into two shifts, one working from 8 a. m. to 6 p. m., the other working from 6 p. m. to 8 p. m.; and these shifts alternate on their tours of duty every third day, *i. e.*, the day shift goes on night duty and the night squad takes over the day assignment.

(2) In cases of conflagration the Fire Commissioner is given authority to summon and keep on duty any or all of the members of the fire-fighting forces while the conflagration continues.

(3) The present salaries, pensions, annual vacations and sick or disability leaves of absence are specifically guaranteed without change by sec. 4 of the act to the members of the Fire Department.

There are six main factors which underlie this proposition, none of which may be patent to the voters upon the question as submitted. These factors ought to be explained to them, so that they may form an intelligent judgment before voting on this question, which the Legislature has decreed shall be left to them for decision.

These factors are as follows:

I. THE PRESENT WORKING HOURS OF THE FIREMEN.

The Boston firemen since February 1, 1918, have had one day off duty in every three. They are on duty two full days and nights and on the third day are free for a period of twenty-four hours. The firemen therefore are on duty at the present time in each year 248 days and, if the two weeks' annual vacation is taken into consideration, the actual time of service is 234 days. In addition, they have other time off, viz., church leave on Sunday when the strength of the company permits, three meal hours during the two duty days, and three days' leave in case of death in their immediate families. If the two

former were computed in days they would amount to $15\frac{3}{4}$ days off duty in each year. Besides, if injured in course of duty, unlimited time with pay may be granted.

Boston firemen are therefore called upon to be on duty a maximum of 234 days a year, and even this time may be further decreased by accident or illness incurred in course of duty, in which case the fireman does not suffer loss of pay.

The present time-off privileges with pay are as follows:

1. One free day and night in every three days.
2. Two weeks' annual vacation.
3. Three meal hours during the two duty days.
4. Church leave on Sunday, as explained above.
5. Three days' leave for death in immediate family.
6. Indefinite sick leave if injured in course of duty.

These privileges reduce substantially below 234 days the number of actual working days that the firemen are called upon for performance of duty, which consists largely of attendance at the fire houses rather than of constant physical labor. Most of the time of a fireman, even when actually at a fire house, is unoccupied.

II. WORK OF THE FIREMEN.

Even when on actual duty at the fire house the fireman, other than fire fighting, is not required to do a great amount of work. In the daytime the arrangement is as follows:

7 to 10 a. m., House work, cleaning the fire house and apparatus.

The rest of the day and night is unfilled, except for a company drill once each week of thirty minutes in duration, and for the regular two-hour watch at the fire desk for alarms, to which each man in his turn is assigned. A change of fire hose is made once in every ten days.

The reason assigned by the firemen in their earlier

petition for one day off in three was the need for more time with their families. Still, when granted this additional privilege, many firemen sought and obtained outside employment during their time off duty. Thus, in August, 1918, it appeared at a hearing before the War Labor Board in Boston that fifty firemen were employed by the Curtis & Pope Lumber Company on their days off duty.

This employment was a violation of the rules of the department, but the employment persisted until the War Labor Board voted to request the lumber company to apply to the United States employment agencies for help. Experience seems to show that with additional freedom from duty the men would engage in other employment. It is entirely possible that under the two-platoon arrangement firemen would be able to subordinate their fire-fighting job to their other employment, and men doing so on returning to the fire houses might be in no physical condition to meet the calls for fire-fighting service.

The number of alarms is comparatively few. A tabulation of the total alarms, including false alarms, at the 93* fire houses in the city shows that in the year 1918 there were 5,174 alarms. Each alarm was on the average responded to by apparatus from four or more houses, there being 19,213 runs of apparatus during 1918. This is on the average equivalent to 3.8 runs a week for the apparatus from each house, or $\frac{56}{100}$ of a run a day.

The time consumed in answering these alarms amounted to 9,476 hours. Of the time spent in answering these alarms only 4,468 hours were spent in actual fire fighting, or approximately forty-eight hours' work of fire fighting per annum per fire house. As each man was off duty more than one third of the time the average time of fire fighting per man was about thirty-two hours for the year.

* Engine Company 50 was not in service until July 26, 1918.

The following table gives a summarized total of the actual fire work of the department for the year 1918:

COMPANIES.	Total Number Hours Answering Alarms.	Total Number Hours Fighting Fires.	Average Hours per Company Answering Alarms.	Average Hours per Company Fighting Fires.
50, Engine.....	5,218	2,200	104	44
31, Ladder.....	3,215	1,721	103	55
8, Chemical.....	814	416	101	52
3, Tower.....	98	50	32	16
1, Rescue.....	136	80		

The minimum number of alarms was for Engine 35. It responded to 17 alarms in the year, spent 27 hours and 18 minutes in answering them, and less than $18\frac{5}{6}$ hours in actual fire fighting. As each man was off duty more than one third of the year, the fire fighting of each fireman on the average for the year was done in 12 hours and 37 minutes.

For the first seven months of the present year this same engine company has responded to 6 alarms, consuming 5 hours 50 minutes, of which only 2 hours 6 minutes were spent in actual fire fighting, or 10 minutes a month, which, reduced by one third because of time off, gives $6\frac{1}{3}$ minutes of fire fighting per month for each fireman for the first seven months of the present year.

The maximum number of alarms for 1918 was for Chemical 1, which responded to 475 alarms, consuming approximately 176 hours, of which $105\frac{3}{6}$ hours were spent in actual fire fighting, which reduced by the $\frac{1}{3}$ time-off period leaves 73 hours of actual fire fighting per fireman.

Taking the maximum number of hours in 1918 in responding to alarms, it will be found that Chemical 2, in responding to 382 alarms, spent $177\frac{5}{6}$ hours, of which 98 hours 16 minutes were in actual fire fighting. The time spent in answering the alarms amounted to practically the same as Chemical 1. If this evidence is summarized we find:

1. That the minimum requirement for work in answering all fire alarms in 1918 amounted to a little over 27 hours in the year; subtracting the one day in three reduces the minimum to 18 hours; in actual fire fighting, 18 hours 55 minutes, less the $\frac{1}{3}$ time off, leaves 12 $\frac{1}{3}$ hours of actual fire fighting.

2. That the maximum requirement for work in answering all fire alarms in 1918 amounted to 177 hours; subtracting the one day in three reduces the maximum to 118 hours; in actual fire fighting, 98 hours; deducting the $\frac{1}{3}$ time off leaves 66 hours of actual fire fighting.

3. That the average requirement for work in answering all fire alarms in 1918 is 102 hours; less the $\frac{1}{3}$ absent time leaves 68 hours; in actual fire fighting 59 hours, less $\frac{1}{3}$, leaves 40 hours.

III. THE PRESENT SALARIES OF THE FIRE-FIGHTING FORCE.

The firemen have had since 1912 the following increases in salary:

June 1, 1912	\$100	\$1,200-\$1,300
January 14, 1914	100	1,300- 1,400
May 30, 1919	200	1,400- 1,600

Within the last year and one half the entrance salary has been advanced from \$900 to \$1,100 (recently to \$1,400 a year), and the probationary period reduced from nine months to three months.

The officers and engineers also benefited by these increases in the years 1913 and 1914, as follows:

	1913.	1914.
Chief.....	.....	\$4,000-\$4,500
Deputy.....	.....	3,000- 3,500
Junior deputy.....	\$2,500-\$2,800	2,800- 3,500
District chief.....	2,000- 2,300	2,300- 3,000
Captains.....	1,800- 1,800	1,800- 2,000
Lieutenants.....	1,400- 1,600	1,600- 1,800
Engineers.....	{ 1,300- 1,400 1,400- 1,500	1,400- 1,500 1,500- 1,700

These increases advanced the annual cost of supporting the Fire Department by approximately \$192,155, for the former increases, and by \$140,000 for the \$200 increase in the maximum salaries of privates and assistant engineers, in the spring of this year. It is estimated that the advance in the minimum salary schedule (\$1,100-1,400) recently approved by Your Honor, will cost the city an extra \$15,888 annually. Thus the city has added a total of \$348,043 in the last seven years to the Fire Department salary appropriation.

In addition to the above salaries the firemen are entitled to receive a pension after service of twenty-five years upon reaching the age of fifty-five or, in some instances, after a shorter period of service, as is herein-after set forth. The pensions are paid entirely by the city and the expenditure therefor is increasing each year. Last year the city paid \$187,915.57 to pensioned firemen.

The pension provisions are as follows:

Firemen	Minimum, one half pay or \$700 to \$800. Maximum, two thirds pay or \$1,066.67.
Engineers	Minimum, one half pay or \$850. Maximum, two thirds pay or \$1,133.33.
Officers:	
Lieutenants	Minimum, \$900. Maximum, \$1,200.
Captains	Minimum, \$1,000. Maximum, \$1,333.33.
District chiefs	Minimum, \$1,500. Maximum, \$2,000.
Deputy chiefs	Minimum, \$1,750. Maximum, \$2,333.33.
Chief of department,	Minimum, \$2,250. Maximum, \$3,000.

A fireman's pension, *i. e.*, one half the compensation he was receiving at time of retirement, is payable when a fireman reaches fifty-five years of age, after twenty-five years of service; or he may be retired at the discretion of

the Fire Commissioner after fifteen consecutive years of service. If, however, a fireman is permanently injured in the performance of his duty, he can be retired regardless of length of service at two thirds of the salary he was receiving at time of injury. If mentally or physically disabled after fifteen years of service, he receives one half of his salary at time of retirement. It is to be noted that every increase in salary or promotion in rank automatically increases the pension privilege.

In addition, when a fireman dies within sixty days from injuries received while on duty, his widow or children receive \$1,000 outright from the State Firemen's Association,* besides \$2 a week to each dependent child under fourteen years of age, together with \$100 towards funeral expenses; and an annuity of \$300 from the city while the former remains a widow, or until the youngest child reaches sixteen years of age. The Legislature of this year passed an act (ch. 93 of Special Acts of 1919) increasing this annuity to a sum not exceeding \$600. The Mayor on September 16, 1919, sent a message to the City Council recommending that this act be accepted. The City Council will undoubtedly act favorably on this request, thereby increasing the annuity from \$300 to \$600.

Further, while absent on account of serious sickness or injury received in line of duty the men receive full pay and \$1 a day from the State Relief Fund.

The pension is of a distinct value to the recipients, as is shown by the fact that retired firemen have in one or two cases received as high as \$27,733.42 and \$14,400 in pension payments. There are on the Fire Department pension rolls at the present time (October 1, 1919), 223 former permanent firemen.

It is impossible to ascertain the earning capacity of an individual pensioned fireman, but it can safely be assumed that in these days of high wages and constant demand for service the average salary cannot be much

* Payments made from tax on insurance companies.

below \$800. Granting such a return, and adding to it the minimum pension, the earning capacity of many retired firemen is from \$1,400 to \$1,600 a year.

IV. COMPARISON OF SALARIES OF BOSTON FIRE DEPARTMENT WITH THOSE OF THE BOSTON PROTECTIVE DEPARTMENT AND OF FIREMEN IN OTHER CITIES OF THE COUNTRY.

The salaries of Boston firemen compare very favorably with salaries paid to firemen in other cities of the country.

Thus, Baltimore pays a maximum of \$1,200 a year; New York, \$1,650; Philadelphia, \$1,430; St. Louis, \$1,518, and Los Angeles \$1,380. A survey of fire departments in the United States, made in 1919, gives the following table of maximum salaries in various cities of the country:

CITY.	Maximum Salary.	CITY.	Maximum Salary.
Baltimore, Md.....	\$1,200 a year.	Omaha, Neb.....	\$1,500 a year.
Boston, Mass.....	1,600 a year.	Philadelphia, Penn.....	*1,430 a year.
Buffalo, N. Y.....	1,440 a year.	Pittsburgh, Penn.....	1,560 a year.
Chicago, Ill.....	1,800 a year.	Portland, Ore.....	1,500 a year.
Cincinnati, Ohio.....	1,260 a year.	Rochester, N. Y.....	1,500 a year.
Columbus, Ohio.....	1,500 a year.	San Francisco, Cal.....	1,680 a year.
Detroit, Mich.....	1,700 a year.	Seattle, Wash.....	1,620 a year.
Indianapolis, Ind.....	1,314 a year.	Spokane, Wash.....	1,440 a year.
Jersey City, N. J.....	1,600 a year.	St. Louis, Mo.....	1,518 a year.
Kansas City, Mo.....	1,320 a year.	St. Paul, Minn.....	1,380 a year.
Los Angeles, Cal.....	1,380 a year.	Tacoma, Wash.....	1,440 a year.
Milwaukee, Wis.....	1,464 a year.	Toledo, Ohio.....	1,500 a year.
New York, N. Y.....	1,650 a year.	Washington, D. C.....	1,380 a year.

* Salary is \$1,300, plus 10 per cent. bonus.

If a comparison is made with the salaries and time off of the members of the Boston Protective Department, a private auxiliary fire department in Boston, it will be found that the salaries of its firemen range from \$1,000 to \$1,400, and that they have only one day off in five.

Thus the City of Boston firemen who are publicly employed receive \$200 a year more, though they have every third day free from duty.

V. DECREASE IN HAZARDS OF FIRE FIGHTING.

Fifty years ago the job of a fireman was difficult and perilous. He was called upon to face danger to life and limb. The means provided him for combating fire were primitive and scanty. A ladder, an axe, hose and water were the usual implements for fighting fires. Within the last few years there have been, however, many changes which have substantially decreased the risks of fire fighting.

There was first a change in the building requirements in 1914, by which the building limits of the city in which only first class construction, *i. e.*, of stone or brick, was permitted, were extended to include almost all of the City of Boston. This action and a recent legislative requirement prohibiting the reshingling of houses with wooden material serves to keep down fire risks.

Secondly, the state has established a Metropolitan Fire Prevention Department, whose function is to search out and remove all fire hazards. It has the authority to compel owners to abolish conditions that expose their property to risk from fire and to order and compel the installation of fire prevention devices.

Thirdly, the science of fire fighting has been advanced by the establishing of a training school within the department, so that men are now scientifically taught how to approach the task of putting out flames.

The expenditure of \$900,000 for a high pressure water system within the last seven years, when completed, will still further decrease the risks of firemen.

The installation of motor vehicles and motor machinery, such as quick raising aerial ladders, has enabled the fire company to get more quickly to fires, and thus affords a better and quicker means of combating the fires in their early stages. The recent war has taught the use of gas masks, and they have been added as a neces-

sary adjunct of a fireman's equipment. Thus the danger of suffocation is largely removed. The installation of sprinklers in basements of apartment houses and in large buildings has also reduced the fire hazard. It thus appears that there has been a distinct decrease in the hazards to which firemen are exposed in fire fighting.

VI. THE COST OF THE TWO-PLATOON SYSTEM.

The two-platoon system requires a much greater number of firemen than the present system. If the two-platoon system is accepted by the voters it must be put into effect on February 2, 1920. The Fire Commissioner has estimated that the minimum number of additional men which the two-platoon system will require is 250, including privates and officers:

2 Deputy chiefs.
5 District chiefs.
36 Lieutenants.
207 Privates.

This is the absolute minimum requirement and it is practically conceded that the number of officers is far too low, and that a further number of officers will have to be added. Otherwise it will be necessary to detail privates to act as officers, or to assign lower grade officers to higher positions, without making a corresponding change in rank and salary. This cannot be done. It will be necessary to appoint in addition to the 207 privates double the present number of officers and a total of 375 employees will therefore have to be added. See Appendix A for table of various plans for the two-platoon system and the cost.

The minimum expenditure necessary to meet the requirements of the two-platoon system will call for an appropriation in addition to that already annually granted to the Fire Department (1919, \$2,686,479.35) of \$376,600, and when the system is fully running a total of \$418,000. If additional sets of officers are added, as

undoubtedly will be done, the first year's cost will be \$629,000 and a maximum of \$670,400.

No attempt has been made to compute the additional pension cost to the city if the two-platoon system is adopted, but it is reasonable to assume that the cost of pensions will be enormously increased. The annual pension payments are constantly increasing. In 1884, the first year of firemen's pensions, the payments amounted to \$595.50. In 1918 the expenditures for the same purpose amounted to \$187,915.57. The two-platoon system will increase the roster of the department by about one third, and consequently will in time raise the pension payments in the same proportion.

The money for the maintenance and support of city institutions and the salaries of city employees is obtained from taxation. Any increased expenditure in a department necessarily involves a corresponding increase in the taxes, or the reduction of the appropriations for other departments and a curtailment of their work. The appropriation for the Fire Department has increased from \$1,550,000 in 1910 to \$2,686,479.36 in 1919. This has been due to an increase in cost of materials and supplies; increases in salaries granted to members of the department; the additional requirements for pensions; the heavy investment in motor apparatus; and the appointment of additional men made necessary by granting the men one day off in three.

At the present time only 61 per cent. of the fire apparatus has been motorized, and, to make the department a first-class fire-fighting organization, motorization should be completed as quickly as possible.

There are many administrative features in the operation of the two-platoon system which have not been provided for in the act and which may give rise to complications affecting the discipline and conduct of the department. Some of them are as follows:

1. The bill leaves no option with the Fire Commissioner as to any adjustment of hours of duty. They can only be changed by act of the Legislature. The day force is entitled as of right to leave the fire house at 6 p. m., although members of the night force have not reported for duty.

2. If either the day or night force is engaged at a fire and the period of duty expires, as determined by the Legislature, the members then on duty are entitled to leave their work and shift the job of putting out the fire to the incoming force. No discretion is reserved in the law for the Fire Commissioner to order the men to remain on duty and, if the act is interpreted literally, it will justify the day class in abandoning a fire as soon as their working hours have expired. If this should happen the Fire Commissioner is without authority to discipline any man for such conduct.

3. While the Fire Commissioner, in case of a conflagration, has authority to summon and keep on duty all the members of the fire-fighting force, the act contains no definition of what constitutes a conflagration. Moreover, in case of such a catastrophe, it will be impossible for the Fire Commissioner to reach all the members of the fire force and obtain their attendance on duty in time to make their work effective.

4. There is no reason for acceptance of this referendum measure because the city can adopt such a system by the enactment of an ordinance. Such an ordinance would undoubtedly provide for the proper working of the system. This is not practically possible under the legislative act. Under the act before the voters, if an alarm rang at 5.55 p. m. there would be no authority in the commanding officer to oblige the men to remain on duty until the fire was responded to. This and similar difficulties would be provided for in a city ordinance and if the system were found to be unworkable it could be readily changed by repeal of the ordinance. Under

the legislative act such repeal would be impossible, except by action of the Legislature.

The firemen at present sleep in the fire houses. If their quarters continued to be maintained for sleeping purposes under a two-platoon system, the incentive for obtaining outside employment during the time when they are off duty will be greatly increased, as there are no duties to be performed during night hours, except for the two-hour watch of men on the floor, and answering fire alarms. If the beds are removed and the night force obliged to remain awake, this will undoubtedly be objected to by the firemen and increase the difficulty of retaining discipline among the men. In Chicago upon the adoption of the two-platoon system the beds were removed from the fire houses by the Fire Commissioner, but later on account of political agitation were restored.

Another factor to be considered is the difficulty of getting enough men to fill the requirements of the department if the two-platoon system is adopted. There are on the civil service list only 190 men, and if 375 new men and new officers are to be appointed it is doubtful if they can be obtained. Careful consideration should be given to the probable practical impossibility of obtaining before February 2, 1920, the necessary new men to put this system into effect and the dangers to which the city will be exposed if the two-platoon system is adopted and it is found impossible to obtain suitable men for the department. Furthermore, such a large addition in the force of absolutely green men will lower the fire-fighting power of the whole department.

It should be considered that the two-platoon system, if adopted, is liable to be followed by an appeal for a three-platoon system, or an eight-hour day. The fire department of New York City was recently put upon a two-platoon system, but immediately a movement was started for a three-platoon system, or eight hours a day, and the bill passed the New York Legislature, but was

vetoed by the Governor. In Tacoma, Washington, the two-platoon system prevails, but there is now an agitation for a three-platoon system.

The Finance Commission recommends that Your Honor take such steps as you deem advisable to inform the voters of the facts hereinbefore set forth.

Respectfully submitted,

THE FINANCE COMMISSION,

by GEORGE A. FLYNN,

Chairman.

NOTE.—The above measure was defeated at the polls on November 4, 1919. Yeas 37,605; nays 43,051.

APPENDIX A.

PLAN I.

(*Note.*—This plan calls for a numerical strength of the smallest number under which the two-platoon system could be operated.)

	First Year.	Maximum.
2 Deputy chiefs at.....	\$3,500 — \$7,000	\$3,500 — \$7,000
5 District chiefs at.....	3,000 — 15,000	3,000 — 15,000
36 Lieutenants at.....	1,800 — 64,800	1,800 — 64,800
207 Privates at.....	1,400 — 289,800	1,600 — 331,200
Totals.....	\$376,600	\$418,000

PLAN II.

(*Note.*—This is the same as Plan I., with two extra lieutenants added in each district, to be used in case of emergency on account of shortage of Company officers.)

	First Year.	Maximum.
2 Deputy chiefs at.....	\$3,500 — \$7,000	\$3,500 — \$7,000
5 District chiefs at.....	3,000 — 15,000	3,000 — 15,000
66 Lieutenants at.....	1,800 — 118,800	1,800 — 118,000
207 Privates at.....	1,400 — 280,800	1,600 — 331,200
Totals.....	\$430,600	\$472,000

PLAN III.

(Note.— This plan allows for a full set of officers above the rank of captain, with two extra lieutenants in each district.)

	First Year.	Maximum.
4 Deputy chiefs.....	\$14,000	\$14,000
15 District chiefs.....	45,000	45,000
65 Lieutenants.....	117,000	117,000
207 Privates.....	289,800	331,200
1 Aide to chief.....	1,800	1,800
Totals.....	\$467,600	\$509,000

PLAN IV.

(Note.— This plan calls for a double set of officers above the rank of captain, and two captains where company commanders are of that rank, also two lieutenants where the company commanders are of that rank.)

Present Number of Officers.

	First Year.	Maximum.
4 Deputy chiefs at.....	\$3,500 — \$14,000	\$3,500 — \$14,000
15 District chiefs at.....	3,000 — 45,000	3,000 — 45,000
60 Captains at.....	2,000 — 120,000	2,000 — 120,000
207 Privates at.....	1,400 — 289,800	1,600 — 331,200
Totals.....	\$468,800	\$510,200

Double the Present Number of Officers.

	First Year.	Maximum.
4 Deputy chiefs at.....	\$3,500 — \$14,000	\$3,500 — \$14,000
15 District chiefs at.....	3,000 — 45,000	3,000 — 45,000
60 Captains at.....	2,000 — 120,000	2,000 — 120,000
89 Lieutenants.....	1,800 — 160,200	1,800 — 160,200
207 Privates at.....	1,400 — 289,800	1,600 — 331,200
Totals.....	\$629,000	\$670,400

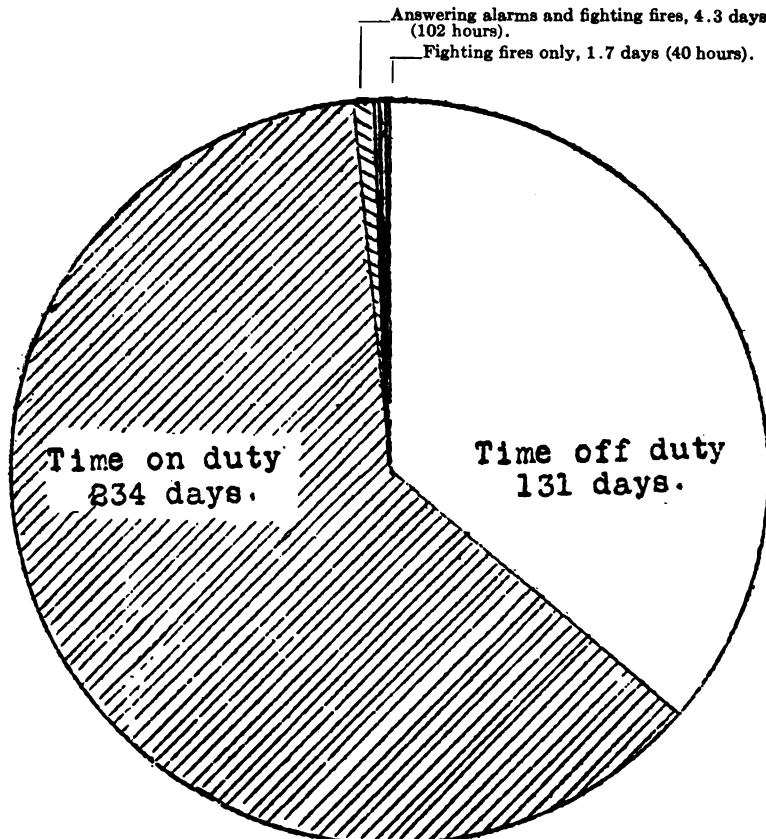
PLAN V.

(Note.— This plan calls for a number which will make the department as numerically strong as it was on the morning of August 25, 1919.)

	First Year.	Maximum.
4 Deputy chiefs at.....	\$3,500 — \$14,000	\$3,500 — \$14,000
15 District chiefs at.....	3,000 — 45,000	3,000 — 45,000
36 Lieutenants (including aide to chief) at,	1,800 — 64,800	1,800 — 64,800
314 Privates at.....	1,400 — 439,600	1,600 — 502,400
Totals.....	\$563,400	\$626,200

APPENDIX B.

DIAGRAM SHOWING AVERAGE WORKING CONDITIONS BOSTON FIRE DEPARTMENT, 1918.



WORKING CONDITIONS AND BENEFITS OF BOSTON FIREMEN.*Time off Duty.*

DATE.	Time Granted.	Cost.
May 1, 1896.....	1 day in 8	\$50,000
December 8, 1905.....	1 day in 5	80,000
February 1, 1918.....	1 day in 3	172,800
Total.....	.....	\$202,800

Two weeks' vacation with pay.

Three meal hours during the two duty days.

Church leave on Sunday (consisting of 1 to 1½ hours) when strength of company permits.

Three days' leave with pay on account of death in immediate family.

Indefinite sick leave with pay, if injured in course of duty.

WORK OF FIREMEN.

7 a. m. to 10 a. m. House work in house and cleaning apparatus.

One half-hour. Company drill once a week.

Two hours' watch on floor for fire alarms.

Change of fire hose once every ten days.

Minimum requirement for fire alarm work per annum per fireman

27 hours.

Minimum requirement, subtracting 1 day in 3

18 hours.

Minimum requirement for actual fire fighting per annum per fireman

18½ hours.

Minimum requirement, subtracting 1 day in 3

12½ hours.

Maximum requirement for fire alarm work per annum per fireman

177 hours.

Maximum requirement, subtracting 1 day in 3

118 hours.

Maximum requirement for actual fire fighting per annum per fireman

98 hours.

Maximum requirement, subtracting 1 day in 3

66 hours.

Average requirement for fire alarm work per annum per fireman

102 hours.

Average requirement, subtracting 1 day in 3

68 hours.

Average requirement for actual fire fighting per annum

59 hours.

Average requirement, subtracting 1 day in 3

40 hours.

SALARY INCREASES.

DATE.	Minimum.	Maximum.
June 1, 1912.....	\$900	\$1,200-\$1,300
January 14, 1914.....	900	1,300-1,400
August, 1918.....	1,100	1,400
August, 1918.....	*	.....
May 30, 1919.....	1,100	1,400-1,600
September, 1919.....	1,400	1,600

Total amount of these increases.....\$348,043 a year.

PENSION BENEFITS.

55 years of age and 25 years of service, retired at his own request at one half pay \$800 per year.

15 years of consecutive service, he may be retired at discretion of Fire Commissioner at one half the pay he was receiving 800 per year.

Injured in performance of duty, retired without consideration of length of service in the department at two thirds pay he was receiving \$933.33 to \$1,066.66 per year.

Mentally or physically disabled after 15 years of service receives one half pay at time of retirement 800 per year.

Higher grade officers receive larger pension, corresponding to their salaries and grades.

SICK BENEFITS.

Full pay during serious illness or injury incurred in course of duty, regardless of length of absence.

\$1 a day from the Massachusetts State Firemen's Relief Fund.†

All medicine and hospital bills for injuries received in course of duty are paid by the Boston Firemen's Relief Fund,† principal source of which is sale of annual ball tickets.

DEATH BENEFITS.

(No Contribution by Firemen.)

\$1,000 to wife and children, from Massachusetts State Firemen's Relief Fund.

\$2 a week to each child up to 14 years of age, from Massachusetts State Firemen's Relief Fund.

\$300 annuity to widow or children under 16 years of age, by the City of Boston. (Soon will probably be increased to \$600.)

\$100 toward funeral expenses, from Massachusetts State Firemen's Relief Fund.

* Probationary period reduced from nine months to three months.

† No assessment on firemen for this fund.

FIRE DEPARTMENT PENSION PAYMENTS.

1884-85.	1918-19.	Total for years 1884-1919 (January 31).
\$595 50	\$187,915 57	\$2,267,210 58

COST OF FIRE DEPARTMENT.

1896-07.	1905-06.	1918-19.
\$1,224,136 56	\$1,341,448 01	\$2,291,491 53

ESTIMATED ADDITIONAL COST OF TWO PLATOONS.

Minimum.	Maximum.
\$376,600	\$670,400

COMMUNICATION TO THE MAYOR
in relation to
RESURFACING CERTAIN STREETS IN THE
ROXBURY DISTRICT WITH SHEET AS-
PHALT.

BOSTON, October 31, 1919.

HON. ANDREW J. PETERS, *Mayor*:

SIR,— The Finance Commission having had called to its attention matters connected with the work of resurfacing certain streets in the Roxbury district with sheet asphalt, has caused an examination of conditions to be made by its consulting engineer, whose report is appended herewith.

The Finance Commission concurs with the recommendations made by its consulting engineer and in addition recommends that measures be taken to discipline the inspector, unless his absence from the work is found to have been necessitated by unforeseen circumstances beyond his control.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

APPENDIX.

BOSTON, October 31, 1919.

To the Finance Commission:

GENTLEMEN,— Acting on the instruction of the chairman, I have this day made an examination of the work of the Bermudez Company now surfacing certain streets

in the Roxbury district with sheet asphalt, the contract being for Conant, Parker and Smith streets, dated September 19, 1919.

I found the work of laying asphalt surfacing in progress on Conant street, near Huntington avenue. Some time previous to 8.30 a. m. a quantity of hot binder material had been dumped on Conant street, between Huntington avenue and Whitney street, although it must have been raining at the time the material was dumped. The subgrade of the street had been imperfectly graded and apparently very lightly rolled. There were many loose stones lying on the street, and the surface was covered with a thin, liquid mud, due to the rain of the previous night.

At 9.45 a. m. I again visited the street and the pile of binder had been spread, covering nearly the entire area between Huntington avenue and Whitney street. The work of rolling was in progress. Although no mud from the subgrade appeared on the surface of the rolled binder, it was apparent that the interstices between the stones of the binder course must have been filled to a greater or less extent with the liquid mud from the subgrade.

The laborers were gathered about the heater, waiting for more material to arrive and discussing the fact that the work was being laid in a rain storm. One English-speaking laborer made the remark that he hoped it would rain so hard as to wash the whole street away.

I then made an examination of the remaining streets that had been subgraded and found the same conditions as already mentioned. Returning again to Conant street, a load of surfacing material arrived at 10 o'clock and was dumped on the binder apparently laid yesterday, about 100 feet east of St. Alphonsus street. This load of surfacing material was being spread and rolled when I left the work, the English speaking-element of the laborers being retained to do the work, the Italians having refused to work longer on account of the rain.

The specifications covering the conditions are unusually brief, leaving much to the judgment of the commissioner. In the specifications both for binding and for surfacing materials the following paragraph appears:

No binder shall be laid when in the opinion of the commissioner the weather conditions are unsuitable, or unless the foundation is dry.

This provision was clearly being violated at the time of my examination. The subgrade on which the binder was placed was thoroughly soaked and the surface of the binder laid on previous days contained small pools of water where the material was compacted sufficiently to be water-tight. No inspector could be found on the work.

The condition above described is, I believe, typical of the conditions under which a large part of our sheet asphalt pavements are laid and accounts for the general poor character of such pavements in the City of Boston. The reduction of the guaranty period from ten to five years placed the responsibility for obtaining a good quality of pavement upon the inspection service of the city. From many cases that might be quoted in addition to the present one, it is apparent that some at least of the inspectors assigned to this work are negligent, or dishonest, or both.

. On account of the especially flagrant conditions found on the contract under discussion, the contractor should be required to remove the material laid on this date, as well as any additional material that can be shown to have been laid under similar conditions. The Commissioner of Public Works should also take means to insure competent inspection of bituminous sheet pavements under whatever conditions they are laid.

Respectfully submitted,

GUY C. EMERSON,
Consulting Engineer.

COMMUNICATION TO THE MAYOR

*in relation to*POSSIBLE ECONOMIES IN FURNISHING LIGHT
AND POWER FOR CITY HALL AND CITY
HALL ANNEX.

BOSTON, November 7, 1919.

Hon. ANDREW J. PETERS, *Mayor*:

SIR,—The Finance Commission submits the following report on possible economies in furnishing light and power for City Hall and City Hall Annex.

At the time of the construction of the City Hall Annex the Boston Finance Commission recommended that Edison current be used for light and power. This recommendation was not accepted. A light and power plant was installed which furnishes light to the City Hall and Annex, and electric current for operating the elevators in the Annex.

In accordance with the recent request of Your Honor that the commission investigate means of reducing municipal expenditures, the commission requested its consulting engineer to examine the power and lighting plant at City Hall Annex and the cost of its operation, to determine if economies could be accomplished and proper service maintained by the purchase of Edison current.

The commission finds that at times when the elevators in the Annex are heavily loaded the lights in the different departments flicker, and that much better and more constant light would be obtained if the Edison current were used.

It also occasionally happens that the employees of the Election and Health Departments are obliged to work late at night. Under existing conditions this requires

overtime labor to furnish these employees with light and the employees of the Health Department, which is on the tenth floor of the Annex, with elevator service. This overtime would be eliminated if the Edison current were used.

An examination of the cost of the operation of the plant shows that with the present cost of coal and the present wage scale, a saving of more than \$4,000 a year could be accomplished by discontinuing the power and lighting plant and buying Edison current. This would require the reduction of the engineering force by the elimination of two assistant engineers and three firemen, one half of whose time is now charged to the engine room.

A further net saving of \$2,500 could be made if the city installed new electric elevators in City Hall, to take the place of the present two hydraulic elevators, which are very old and constantly out of repair and give unsatisfactory service. From the information in its possession the commission believes that the installation of two modern electrical elevators in City Hall would cost approximately \$20,000. The fixed cost for interest and carrying charges on the investment for new elevators would be about \$1,500, and the saving in the cost of operation would be approximately \$4,000, leaving a net saving of \$2,500. In addition, the elevator service in City Hall would be greatly improved. This change in the method of operation would permit a further reduction in the engine room force at City Hall Annex of one assistant engineer.

If it should be found to be inadvisable to make the necessary investment for installing new electrically driven elevators, two alternative plans are available. Either of these alternatives will accomplish the same financial saving as would new elevators. They would not, however, materially increase the efficiency of the service. The first alternative would be to install electrically driven pumps to replace the present steam driven pumps in City Hall. The cost would be approximately \$5,000. The second alternative would be to install one

electrically driven pump in City Hall for use during the summer season. The present steam driven pumps could be used during the winter season. This alternative would cost approximately \$3,500. The commission sends herewith the report of its consulting engineer on this matter, and also a copy of the report of the Edison Electric Illuminating Company relative to the same.

The commission recommends:

1. That a detailed study be made to determine the best method of changing the motive power of the elevators in City Hall from steam to electricity.
2. That the light and power plant in City Hall Annex be discontinued and electrical energy for furnishing light and power for City Hall and City Hall Annex be purchased from the Edison Electric Illuminating Company.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

BOSTON, September 11, 1919.

To the Finance Commission:

GENTLEMEN,— During the building of the City Hall Annex the Finance Commission submitted several protests to the authorities then in charge against the installation of the heating and lighting equipment in the form finally installed. Several reports were submitted, including estimates which showed that a material saving could be made by using electrical current from the Edison Electric Illuminating Company for lighting and for the operation of elevators.

These reports were of necessity based on estimates of the amount of current to be required and it was difficult to refute conclusively the estimates of the engineers employed by the city, or their claims that the estimates furnished by the Finance Commission were based upon unwarranted assumptions.

The actual operation of the plant through a period of years has shown that the estimates furnished by the Finance Commission were conservative and that the savings possible were even greater than estimated. On account of the high price of coal and labor the possibilities of savings by the employment of the Edison current are greater than at any former period.

In view of the request of the Mayor that the Finance Commission investigate the possibilities of saving in the departments and whether departmental forces are overloaded, I have again taken up the matter of a possible saving by the installation of the Edison Company's current in the City Hall Annex. At the present time we have the benefit of actual costs in operation, so that the figures herein submitted are much more definite than were the previous ones.

The accompanying estimate has been made by an engineer of the Edison Company upon information largely furnished from various reports made to the Public Works Department. I have gone over the figures carefully and believe that the results arrived at are conservative and that the actual saving would be more than estimated. As you will note, the savings possible by shutting down the present electric light plant in the City Hall Annex and the use of the Edison current would be at least \$4,000 per year.

If electrically driven elevators were installed in City Hall, the annual saving, not including fixed charges, would be at least \$8,000 per year. Close figures of the cost of installing electrical elevators in City Hall are not available, but from quotations in the past I believe the cost at the present time would be approximately \$20,000. The fixed costs for interest and carrying charges would be approximately \$1,500 per year, so that the total savings, were electrical elevators installed, would be approximately \$2,500 a year for the City Hall elevators alone.

The installation of modern, electrically operated elevators would give the best possible service and undoubt-

edly the lowest annual operating cost. In consideration, however, of the large investment necessary, other plans may be worthy of consideration. For example, a large part of the savings above estimated might be made by replacing the present steam driven elevator pumps in City Hall with electrically driven pumps, and retaining the present hydraulic elevators. The cost of the work would probably be less than \$5,000; or as a second alternative, a single, electrically driven pump could be installed in City Hall for use during the summer season. This would allow the complete closing of the power plant in City Hall Annex for at least five months, May to September, inclusive. During the cold months the present steam operated equipment could be used. It is very likely that this alternative would prove to be the most economical. The investment involved would probably be not more than \$3,500.

A detailed investigation should be made by mechanical engineers, expert in elevator work, before any decision is arrived at. In addition to the actual saving in annual cost possible, the city would secure a much better service, both as regards its lighting and its elevator service. This benefit is impossible to estimate in a financial way, but it would certainly be a great advantage.

Respectfully submitted,

GUY C. EMERSON,
Consulting Engineer.

APPENDIX.

REPORT UPON THE COST OF LIGHT, HEAT AND POWER AT THE BOSTON CITY HALL, THE ANNEX, AND POLICE STATION.

Introductory.

Electrical energy for lighting for six electric elevators and miscellaneous power is now produced by generating equipment upon the premises.

Steam is used for heating the building, and for the steam pumps furnishing the two old hydraulic elevators in the City Hall.

Object of Report.

The purpose of this report is to present a comparison between the cost of light, heat and power in these buildings at present, and those costs which would result if the electric generating plant were shut down and electrical energy purchased from the central station, and used under either one of two different systems of operating.

Result of Investigation.

The total yearly costs, as developed in detail in the body of this report, may be summarized as follows:

Present cost of operating plant	\$36,710 00
Cost with central station electric service retaining two hydraulic elevators	32,232 00
Cost with central station service with all electric elevators	28,463 00

Conclusion.

A very material saving may be made in the operating expense of this building by purchasing central station service.

A saving of over \$4,000 per year is possible by simply closing down the small engines and buying electrical energy. This change involves no investment on the part of the city other than the cost of installing the cable connecting the switch board with the service terminal, which terminal would be installed by the Edison Company just inside the building wall, in the event of its supplying service.

The saving will be increased to over \$8,000 per year provided that the two hydraulic elevators are electrified so that the boilers may be shut down during the non-heating period.

The electrification of the remaining two hydraulic elevators may be considered as a permanent building

improvement rendering superior and more reliable elevator service than that possible with the old hydraulic equipment.

It has been universally agreed that service cannot be as advantageously provided by the private plant as by the central station. This is not only borne out by figures but is evidenced by the fact that no new electric plants are being installed in this city and that the existing private plants are fast changing over to central station service.

This is largely in response to the general tendencies of modern business toward specialization and also to the unsettled conditions of the present day.

The fact remains that a saving to the city of \$8,000 per year may be made by purchasing central station service.

Respectfully submitted,

J. W. WATTLES,

September 5, 1919.

Commercial Engineer.

The following comparative table is devoted to a detailed analysis of the various expenses involved under the three systems of operation.

COMPARATIVE OPERATING COSTS FOR YEAR 1918-19 CORRECTED TO PRESENT WAGE SCALE.

	(1) Private Plant.	(2) Edison With Two Hydraulic Elevators.	(3) Edison Electric Elevator.
COAL.			
(1) Actually burned: 1,949 tons at \$9.50.....	\$18,495 00		
(2) Heating and two elevators: 1,200 tons at \$9.50.....		\$11,400 00	
(3) Heating only: 1,000 tons at \$9.50.....			\$9,500 00
LABOR.			
(1) Chief engineer at \$42..... Three assistant engineers at \$37... Three firemen at \$30..... Three firemen, one half time, at \$30	\$42 00 111 00 90 00 45 00		
Weekly pay roll.....	\$288 00	14,976 00	
Carried forward.....	\$288 00	\$33,471 00	\$9,500 00

COMPARATIVE OPERATING COSTS FOR YEAR 1918-19 CORRECTED TO PRESENT WAGE SCALE.—Concluded.

	(1) Private Plant.	(2) Edison With Two Hydraulic Elevators.	(3) Edison Electric Elevator.
<i>Brought forward.....</i>	\$288 00	\$33,471 00	
(2) Chief engineer at \$42.....	42 00		
One assistant engineer at \$37.....	37 00		
Three firemen at \$30.....	90 00		
Weekly pay roll.....	\$169 00	8,788 00	
(3) Chief engineer at \$42.....	\$42 00		
Three firemen at \$30.....	90 00		
	\$132 00		6,864 00
EDISON SERVICE.			
(2) 190,075 kilowatt hours at 150 kilowatt demand.....		10,044 00	
(3) 214,075 kilowatt hours at 165 kilowatt demand.....			10,899 00
Supplies and repairs.....	3,239 00	2,000 00	1,200 00
Yearly operating expense.....	\$36,710 00	\$32,232 00	\$28,463 00

The detail of the comparative operating expenses are analyzed herewith:

DATA FROM ENGINEER'S REPORT FOR YEAR 1918-19.

	Total Kilowatt Hours Generated.	Tons Coal Burned.	Cost of Coal.	Supplies and Repairs.
February.....	16,525	194	\$1,764 00	\$233 00
March.....	17,610	183	1,822 00	136 00
April.....	15,830	165	1,543 00	88 00
May.....	16,120	147	1,376 00	82 00
June.....	14,640	143	1,342 00	973 00
July.....	15,160	144	1,348 00	146 00
August.....	12,620	128	1,201 00	211 00
September.....	12,760	120	1,151 00	242 00
October.....	16,295	169	1,620 00	320 00
November.....	15,335	151	1,458 00	281 00
December.....	17,545	200	1,915 00	215 00
January.....	19,635	205	1,955 00	311 00
Total.....	190,075	1,949	\$18,495 00	\$3,239 00

Coal.

1. The amount of coal burned from February 1, 1918, to January 31, 1919, was taken from the engineer's records with the cost as reported.

2. Heating of building. From the records of several steam heating plants in this city the amount of coal burned during the three winter months of December, January and February averages a total of 54 per cent. of the season's coal requirement.

The total coal burned at the City Hall during these three months last year covering electric plant and hydraulic elevators amounted to 599 tons.

We will assume that only 10 per cent. of this could be saved without the generators during these months. Then 540 tons representing 54 per cent. or 1,000 tons of coal per year may be charged to heating the building.

3. Hydraulic elevators. The amount of coal required to operate two (2) hydraulic elevators during the summer months is taken as 22 tons per month. This figure is based on the actual coal burned during the summer at several buildings using Edison service and having hydraulic elevators.

BUILDING.	LOCATION.	Number of Hydraulic Elevators.	Number of Passenger Elevators.	Number Freight Elevators.	Tons of Coal Used per Month.
Jefferson Building.....	558 Washington street....	4	2	2	28
Warren Chambers.....	419 Boylston street.....	3	3	.....	28
Talbot & Co.....	395 Washington street...	3	1	2	14
Deane Building.....	60 India street.....	5	1	4	20

The amount of coal chargeable to hydraulic elevators at City Hall, due allowance being made for the use of exhaust steam for heating, is as follows:

	Tons.
Six summer months at 22 tons.....	132
Six winter months at 10 tons.....	60
Amount chargeable to hydraulic elevators.....	192

We have used 1,200 tons as a conservative estimate of the total for elevators and heating.

Labor.

1. The items of labor in the comparative costs are taken from the latest adjustment resulting from a threatened strike.
2. Without the operation of the electric plant we have considered two (2) engineers and three (3) firemen throughout the year a liberal number of employees to handle the hydraulic system for two elevators and steam for heating.
3. For steam heating alone we have allowed one (1) engineer and three (3) firemen for twelve months, although the plant would be entirely shut down for five months.

Edison Service.

1. The charge for purchased electric light and power is based on the actual meter readings and standard rates, as per published schedule of rates.
2. We have added 24,000 kilowatt hours per year for the new electric elevators, which is a conservative figure compared with that consumed by other elevators using purchased power.

In the foregoing comparisons we have intentionally omitted any overhead expenses, such as interest and depreciation on city money invested in generating equipment.

In conclusion we believe that all assumptions have been made on the conservative side, and that the actual savings realized will exceed the indicated amount of \$8,000 per year.

COMMUNICATION TO THE MAYOR

*in relation to*THE SPECIAL ACT PROVIDING FOR A PENSION
TO BERNARD J. KELLEY.

BOSTON, November 12, 1919.HON. ANDREW J. PETERS, *Mayor:*

SIR,—The Finance Commission presents to Your Honor the following reasons for vetoing the acceptance by the City Council of ch. 117 of the Special Acts of 1919. The act if accepted by the city would permit Bernard J. Kelley, a former member of the Police Department, to receive a pension of \$365 a year. The reasons are as follows:

Bernard J. Kelley was appointed to the Fire Department as a probationer on June 14, 1912, at a salary of \$720 a year. He continued in the Fire Department and was honorably discharged at his own request on May 15, 1916. He was then in the receipt of a yearly salary of \$1,200. The only injury he received while a member of the Fire Department was one to his wrist on November 22, 1913, on account of which he was out seventeen days on sick leave. On May 15, 1916, he became a reserveman in the Police Department at a salary of \$730 a year and remained with the Police Department for a period of 8 months and 28 days, when he resigned after a sick period of four days.

It appears from the records of the Police Department that on October 28, 1916, Reserveman Kelley arrested a sailor for drunkenness, claiming also that he had been assaulted by the prisoner. On the charge of drunkenness the sailor was discharged by the court, and on the charge of assault the court placed the matter on file and delivered the sailor to the naval authorities at Charles-

town. No report was made by Reserveman Kelley of any injuries received on this occasion and no time was lost from duty. He received, however, \$6.32 on his petition to be reimbursed for damages to his trousers and to his helmet.

On February 11, 1917, a report was made by Captain Canney to the Superintendent of Police as to the actions of Reserveman Kelley, as follows:

I respectfully report that, in my opinion, Reserveman Bernard J. Kelley of this division is mentally unfit for duty as a police officer. At the present time he is absent sick, his physician, Dr. John Duff of Charlestown, stating that he is suffering from a nervous breakdown. Reserveman Kelley has been attached to this division since his appointment to the force, May 15, 1916. I find upon investigation that during the past two months he has labored under the delusion that the men of the division were talking about him, and he has held himself aloof from any sociability or companionship with them. On several occasions he has challenged them to fight and has threatened several of them, and some of the men are in fear of him.

In my opinion he is a dangerous man to be armed with a revolver and the authority of a police officer.

Mr. Kelley was committed to the Boston State Hospital on January 1, 1918, suffering from dementia praecox. He was at that time twenty-eight years of age and unmarried. He escaped from the institution on November 23, 1918, and is still at large, although the hospital authorities are very anxious to retake him for his own safety.

The Police Department is opposed to any favorable consideration of the act as it believes that Mr. Kelley's mental condition was not the result of any injury received in the service of the City of Boston and that the facts set forth in the above report indicate that his mental disturbance antedated the occurrence on Boston Common which is now alleged as the cause of his present condition.

Under the law members of the police force are retired by the Police Commissioner, with the approval of the Mayor on the written certificate of the physician to the Board of Health that the member is permanently incapacitated for police service by reason of injuries received in the actual performance of his duty. If Mr. Kelley had received injuries in the performance of his duty which caused his retirement he could have received his pension by following the regularly established procedure.

The commission believes that no approval should be given to this act, as to do so would in effect supersede the province of the Police Commissioner and would break down for no good reason the regular established practice of obtaining pensions in the Police Department.

The Finance Commission recommends that Your Honor veto the acceptance of this act.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE MAYOR AND CITY COUNCIL
in relation to
THE FANEUIL HALL MARKET LEASES.

BOSTON, November 25, 1919.

To the Honorable the Mayor and City Council:

GENTLEMEN,—The need of the city for additional revenue has become acute. One of the ways in which the revenue of the city may be materially increased is by the adoption of the Finance Commission's recommendations for increased rentals for the market leases.

This matter has been before the City Council since September 2, and although a public hearing on the question was held as far back as October 20, no approval by the City Council of the Mayor's recommendations increasing the rental of the stalls and other space in Faneuil Hall and Quincy Markets has been given.

The order introduced by the Mayor on October 6 provides for an increase in the rentals in accordance with the recommendations of the Finance Commission, to date from October 1. If the City Council will at once act favorably upon this matter the City of Boston will receive the proposed increase in rentals of the market stalls from October 1.

The Finance Commission recommends that the City Council take immediate action upon the Mayor's orders of August 9 and October 6.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE COMMITTEE ON
MUNICIPAL FINANCE
in relation to
SCHOOL TEACHERS' SALARIES.

BOSTON, December 3, 1919.

To the Honorable the Committee on Municipal Finance:

GENTLEMEN,— There has been referred to your committee, in accordance with the message of His Excellency the Governor, a request (House Bill No. 1960) from the School Committee of Boston that the city be authorized to increase its tax limit so as to provide increase of salaries to the Boston school teachers, in accordance with a schedule prepared by the School Committee.

This subject is of such importance, both to the public and to the teachers themselves, that before a decision is given you should be in possession of all the facts which have any bearing upon the matter.

The Finance Commission has studied the question and presents the following report upon the subject of increasing the salaries of Boston school teachers.

The only question to be solved is the amount of the increase to be granted, because it is assumed that some increase is necessary. The difficulty is to balance the amount of the increase with fairness to the taxpayers who will have to provide the money to meet the advanced expenditures.

I.— THE PRESENT DESIRE OF THE SCHOOL TEACHERS
FOR A FLAT \$600 INCREASE.

On October 15, 1919, at a meeting between the School Committee and representatives of all branches of school teachers (including the school physicians and nurses) a request was made by *three* teaching groups that a flat or uniform increase of \$600 be made to their

groups. An independent and further request was also made by the high school women teachers that the policy of equal pay for equal work be adopted by the School Committee and that the women high school teachers be given the same pay as their men co-workers. In addition they desired also the \$600 increase. Such a request involves an increase of approximately \$1,800 for each woman high school teacher. The other fifteen groups specified no amount and it was not until after the School Committee proposal of an increase of \$384 was announced that an increase of \$600 for all teachers was demanded.

The teachers advanced the same argument this year that they did a year ago, when they were agitating the question of increased salaries. Summarized, the demands are based upon four grounds:

1. The abandonment of the profession of school teaching for other occupations.
2. The abnormal cost of living.expenses.
3. Higher pay in private employment.
4. Higher salaries paid to teachers in other cities.

The first reason affects the efficiency of the school system. The last three affect very vitally the teachers individually.

The defection from the profession of school teaching to other gainful occupations is not as great as is commonly supposed, although such a statement is being very widely advanced by interested persons. This is shown by the number of students at the Boston Normal School for the last decade, viz., 1910 to 1919. For sake of brevity the years intervening between 1910 and 1918 have been omitted, but the data exhibited gives a comparative summary of conditions ten years ago and now:

1910.	1918.	1919.
216	254	227

The gain in 1918 over the figures of 1910 is remarkable not only because the United States was then acutely engaged in the European War and was drawing on man and woman power from all professions and employments, but also because in 1918 the normal course had been advanced to three years, whereas in 1910 it was only two years. More students, therefore, preferred to enter the teaching profession in 1918, although the attractions of a business career are claimed to be as great if not greater than those now offered by the teaching profession. The slight decline in the number of students in the last year cannot be termed a fixed condition. It only illustrates the after effects of the abnormal situation occasioned by the war and seems temporary.

While the number of pupils in the entrance class of the Boston Normal School last September was about twenty-four less than the usual number of entrants, investigation of the reason for the failure to enter showed that many of the pupils who had taken and passed the entrance examination for the Boston Normal School had later decided to go to college where the course was only one year longer, and allowed them opportunity for higher employment in the teaching profession than is possible for Normal School graduates. Returns show that the colleges of the country were never so crowded as they are at the present time and in a few years the teaching profession undoubtedly will be enriched by the addition of many college graduates.

Figures obtained from the superintendent's office of Boston show also that the number of teachers taking the examination for admission to Boston's schools is greater than it has been for some time. Thus in 1912 there were 54 persons who took the examination for high school teachers and 45 were granted certificates; in 1914 there were 25 candidates and 20 certificates were granted; in 1917 there were 30 candidates, nineteen (19) of whom were granted teaching certificates, and in 1919

there were 67 candidates and 45 certificates were granted. These figures show that the teaching profession is still attractive under present salary schedules. The labor market all over the country as well as the professions have been hard hit by the unusual conditions due to the war and the period of readjustment through which the world is passing is probably a forerunner of a return to normal times.

These conditions prevail in other professions and other employments and will remain so until readjustment of the economic conditions of the country takes place.

A still further fact which shows that the teaching profession is still attracting pupils of high schools is found in the number of enrollments in the state normal schools. During the war and as late as last year this enrollment showed a great falling off, but the present year's enrollment is approximately as large as that for 1910, while the number of graduates is much higher. The total enrollment and graduations in the state normal schools for certain years are as follows:

1910.		1918.		1919.	
Enrollment.	Graduation.	Enrollment.	Graduation.	Enrollment.	Graduation.
2,085	664	2,527	964	2,069	803

Further, it has been claimed that teachers are leaving their positions to enter business life. This is true to a very limited extent. Fifty-eight (58) since 1915 have left to accept business employment as follows:

	Men.	Women.	Total.
1915-16.....	1	3	4
1916-17.....	10	10	20
1917-18.....	5	2	7
1918-19}.....	20	7	27
1919-20}			

graduate and a Simmons College (business course) graduate.) The present demand for stenographers and clerks is greater than in ordinary times. While, therefore, it is beyond contradiction that attractive business positions are being offered, they are to be accepted with the full knowledge that both the present wages and positions may be temporary.

On the other hand the teacher has many advantages which are not open to the business woman. The teacher at present has the benefit either for rest, recreation or study, of a full ten weeks period each year during which she may go where she will and use her time to her own advantage. She has a week-end holiday every working week of the year and when she has completed seven years of work she can temporarily retire at half pay for a year for rest and study. If sick and compelled to be absent for a year she receives half pay, and if sick for a second year she may be examined for retirement for physical disability, or else her name is kept on the committee's rolls and she may re-enter the service without further examination. If she is absent on sick leave for more than two years she is entitled upon being restored to health to have her name placed at the head of the eligible list for appointment without examination upon her qualifications as a teacher. When she has completed thirty years of service she can be pensioned at a salary ranging from \$312 to \$600 to which she has contributed nothing. Boston is the only city in the country which maintains such a non-contributory pension system.

The average age at which women teachers retire is stated by the school authorities to be fifty-seven years and the average pension \$431. According to the advertised rates of the State Mutual Insurance Company of Worcester, Mass., it would cost \$4,607.31 to purchase such an annuity at the age of fifty-seven.

The school authorities further state that if the proposed increases of the School Committee are granted the average pension will be automatically increased to \$590. Such an annuity would cost \$7,675.90.

The average age at which men teachers retire is sixty-eight years and annuities for them would cost \$4,776 on both the present salary schedule and on the School Committee's proposed schedule. These increased pensions will require increased appropriations not provided for in the present bill.

That this is an important item is shown by the fact that the 1918 expenditure for pensions to school teachers amounted to \$118,221.48.

The commission submits that considering the guaranty of constant employment, the fixed annual increases of pay, long vacations and short hours, liberal provisions in case of sickness, the provisions for a sabbatical year, and the assurance of a pension renders the teaching positions in the Boston schools more attractive than business positions.

At the present time the elementary teacher's maximum * rate of compensation, based upon an hourly wage, amounts to \$1.28; her present demand would give her \$1.84 an hour while the Finance Commission allowance would give her \$1.55 an hour. Whatever is granted the present year will not be final, for the teachers openly state that later a demand will be made for a further increase.

II.—THE ALLOWANCE OF THE SCHOOL COMMITTEE.

(a.) *Increase to the Teaching Forces.*

The School Committee desires to grant the teachers increases in salary as set forth in Table II.

It should be stated that the increase proposed by the School Committee is in addition to the regular yearly increase at present allowed. It must also be remembered that the elementary teachers on September 1, 1918, received an increase of \$192 and their annual increment which had previously been \$48 was increased to \$96. Thus, an elementary teacher who has not yet reached her maximum salary, which the commission is informed by the school authorities includes more than

* For minimum rates see Table II.

a majority of the teaching force, will receive not only the \$384 to be provided by the proposed legislation, but also \$96, her regular annual increase upon the anniversary of her appointment; a submaster in a grammar school would receive \$120 in addition to the proposed increase and the high school junior masters and principals would receive their \$144 yearly increase and also the proposed increase.

The increase of \$384 was arrived at by the School Committee after having studied salary schedules in other cities and in order to harmonize inequalities existing between various branches of the teaching groups. It has always been a point of discord in the School Department that the salary schedule contained inequalities and the School Committee was requested by representatives of teachers to give special attention to the elimination of this situation. This the School Board has tried to do by the continuation of the regular yearly increase in a multiplied form. To have adopted a flat increase of \$400, \$500 or \$600 would have thrown into confusion the whole salary schedule and produced more inequalities than exist at the present. That the School Committee was very liberal in the grant of \$384 is shown by comparing the proposed increase with the former request of the school teachers themselves. The Boston Elementary Teachers' Club at its annual meeting in 1919 voted to intrust to the members of the Executive Board the question of petitioning the School Board for an increase in salary.

The Executive Board at its meeting on Monday, June 2, 1919, voted to ask that three increments (\$288) be added to the minimum and maximum salaries of all groups of elementary assistants. A petition to this effect was sent to the School Board.

The above request was indorsed by the Boston Women Teachers' Union, Local 88. On June 23, 1919, the Executive Board of the Boston Elementary Teachers' Club, representing assistants in elementary schools,

teachers of cookery, sewing and assistant instructors in manual training and continuation schools petitioned for a similar (\$288) increase. That the teachers had changed their minds and decided to demand a larger increase was not known to the School Committee until October 15, 1919, when the above mentioned conference was held. The committee then learned from representatives of three of the nineteen groups that their demand had been raised to \$600. No demand was then made for a \$600 increase for all groups. It must be understood also in connection with this last request for \$600 that besides this amount the annual increase to those not yet on their maximum salaries would still be in force, so that a majority of the teaching force, if the teachers' request for \$600 were allowed, would be in receipt of increase in their salaries amounting to \$696, \$720 and \$744 for the year 1920. This fact is not generally known. Another disqualifying detail of the teachers' demand lies in the fact that the flat increase proposed throws out of gear the school salary schedule, which is based on an annual increase of \$96, and further increases the present inequalities of the salary schedule.

The flat increase, therefore, has no valid reason for its presentation, and if adopted will only serve to accentuate the feeling of unrest now existing among the teaching groups.

The allowance of the School Committee, however, does not do full justice to the taxpayer, who must stand the full measure of the increase, and his interest should be consulted in conjunction with those of the teachers. If the former request of the teachers for \$288 were taken by the School Committee as a basis for the present relief, the taxpayers would have no valid reason to complain, and neither would the teachers, because those who had attained their maximum would receive almost \$300 additional salary, and at approximately eight months in advance (due to the special session) of the usual time for school increases, and those not on maximum would

receive also \$96, \$120 and \$144, or a total of \$384, \$408 and \$432, during the year 1920. The School Committee, however, has increased this request by \$96, which, if authorized, will compel the taxpayers to shoulder a heavy burden to which they may justly object.

A further fact which has not been given publicity is the \$192 increase to the maximum which the elementary teachers were granted voluntarily by the School Committee on September 1, 1918. If this increase is taken into consideration with the present proposed changes in salaries, it will be found in 1920 that an elementary teacher will have received since September 1, 1918, the large advance in salary of

\$792 under the Teachers' Plan;
\$576 under the School Committee Plan, and
\$480 under the Finance Commission Plan.

In the last ten years the average number of pupils has increased from 99,644 on June 30, 1910, to 105,908 on June 30, 1919, an increase of 6.4 per cent. The employees of the School Committee have increased from 3,558 on April 30, 1910, to 4,486 on June 1, 1919, an increase of 26 per cent.; and the pay rolls of the School Committee have increased from \$3,613,109.54 for the year 1910 to \$6,011,581.89 for the year 1919, an increase of 60 per cent.

(b.) *Proposed Increase to Other Members of the School Department.*

The teaching forces are not the only ones to benefit by the School Committee's action. Adopting the principle of "something for everybody," all other employees of the School Department will be given substantial increases if the Legislature authorizes additional funds for the School Department. These increases are as follows:

(1.) Administration officers:

	From	To	Amount of Increase.
Five assistant superintendents.....	\$5,496 00	\$6,000 00	\$504 00
Business agent.....	4,740 00	5,496 00	756 00
Secretary.....	4,740 00	5,496 00	756 00
Schoolhouse custodian.....	3,000 00	3,300 00	300 00

It will be noted that the highly paid officials of the School Department are included in the list and that the amount of increases granted to them exceeds the rate granted to the school teachers of the lower grades. While the increases of \$504 to each of the Assistant Superintendents and \$756 to the Business Agent and Secretary, respectively, are small in their aggregate amount the principle involved in recognizing such employees as entitled to increases is fundamental.

A further objection to the increase proposed for the assistant superintendents is that some years ago the School Committee agreed with the Finance Commission that the Board of Assistant Superintendents should be reduced from six to three members and in 1914 the law was changed to permit this reduction to be made. (See Acts of 1914, chapter 489.) No attempt has been made to reduce the membership on the Board except that one vacancy has not been filled, and five assistant superintendents continue to be employed.

It is now proposed to raise the pay of these five assistant superintendents in the amount of \$504.

The Finance Commission urges your honorable committee to incorporate in its bill an amendment to the pending bill, House 1960, so that the School Committee may not appoint more than five persons to the Board. When one compares Boston's number of assistant superintendents with the number in Chicago (4), and with that of New York (8), one can readily see that Boston, with its five assistant superintendents and its school

population much below that of either of these other cities, is supporting a Board of Assistant Superintendents in excess of its legitimate requirements.

On the other hand, while the increases to the secretary and business agent in a private corporation might be justified on account of the quality of service rendered by these capable public servants, there must be taken into consideration the effect which increases to these highly paid officials will have upon the rest of the city employees. If increases of \$756 are given to these officials, there is no strong objection that can be advanced for refusing corresponding increases to city officials occupying positions of as great a monetary return. Consequently before such increases are approved they must be weighed in connection with the unrest which will be engendered in other city employees for similar increases if these are approved.

(2.) INCREASES TO JANITORS, CLERICAL FORCES, ETC.

The proposed increases to the groups below the administration officers of the School Committee vary as follows:

Supply Department office	12%
Business agent's office	22%
Superintendent's office	27%
Secretary's office	29½%
Janitors	30%
Clerical assistants, high schools	\$288

These increases were first passed upon by the Salary Board consisting of the superintendent, the secretary and the business agent, and the merits of each employee discussed before the percentage of increase was voted. The 30 per cent. increase granted the teachers and the janitors guided the committee in their allowances to the clerical forces. Consideration was therefore given to each case and the percentage of increase in individual cases varied from 6 per cent. to 37.8 per cent. in the business agent's office, or an average of 22 per cent. for all employees; from 7 per cent. to 17 per

cent. in the Supply Department; from 25.6 per cent. to 44 per cent. in the secretary's office; and from 11 per cent. to 49 per cent. in the superintendent's office. These are substantial increases. Thus in the business agent's office the increases range from \$128 to \$400; in the Supply Department the increases range from \$112 to \$204; in the secretary's office the increases are from \$308 to \$368 and in the superintendent's office, from \$160 to \$368.

The increases in these four offices amount yearly to \$17,920.

Besides these increases there are various increases to small groups, such as the stenographer in the custodian's office (\$184), the thirty clerical assistants and bookkeepers in the Trade Schools (\$288 each), which are too numerous for detailed discussion and which will raise the total amount still further.

These increases in amounts are so large that if similar increases are granted in all the other branches of the city's service it would place an enormous burden upon the taxpaying.

The increase of 30 per cent. in the payments to the janitors was based on the additional cost which the janitors claimed they have been required to pay their assistants. This demand appears unreasonable when compared with Cambridge, which plans an increase of 20 per cent. to its janitors' wages, and with New York, which has adopted approximately 10 per cent. increase.

III.—COMPARISON OF BOSTON TEACHERS' SALARIES WITH SALARIES IN SCHOOL DEPARTMENTS OF OTHER CITIES.

(a.) *Massachusetts Cities and Towns.*

At the present time Boston stands tenth in the minimum salary (\$696) which it pays its elementary teachers. Eight cities pay less than Boston.

In maximum salaries for elementary teachers Boston ranks third with its \$1,368, while only two other communities pay more (Brookline, Grade 8, \$1,518, Springfield, \$1,450).

If to this schedule of minimum salaries is added the School Committee's allowance of \$384, it will place Boston second in the rank of Massachusetts cities for minimum salaries. The only city exceeding Boston is Springfield, with \$1,180, but it should be explained that in Springfield only experienced teachers are employed, while Boston takes the inexperienced and trains them at its minimum salary. Thus, on the School Committee schedule, the Boston allowance of \$1,080 will give it a rank of the highest paid in the state for inexperienced teachers. Similarly, in the maximum grades the allowance of the School Committee of \$1,752 will place it far above any other community in Massachusetts.

If, however, the former request of the school teachers for \$288 were adopted, which the Finance Commission recommends as just to both the teachers and the tax-payers, it would place Boston second in rank for minimum salaries and first for maximum.

Boston will therefore lead every other city and town in Massachusetts if the Finance Commission recommendations are adopted for the salary paid to inexperienced elementary school teachers.

The salary paid in Boston and other cities in Massachusetts is not the only factor in the case, as no other city in the state grants a non-contributory pension to its teaching force and only one or two cities grant a sabbatical year to the teaching force.

(b.) *Other Cities Outside Massachusetts.*

For the purpose of obtaining a comparison with other large cities of the country a list of 23 other than Boston having a population of 200,000 or over was selected, so as to study the minimum and maximum salaries prevailing there.

MINIMUM SALARIES.

Boston stands at the present time twenty-first in minimum salaries for its elementary teachers; St. Paul, New Orleans and Providence paying less than Boston's rate.

On January 1, 1920, under the School Committee's plan it will stand third; the only cities in the country on that date, as far as at present known, which will be paying more for initial salary will be Los Angeles, \$1,100, and Portland, Oregon, \$1,200. New York City has established \$1,005 as the minimum salary, but teachers will not attain to this amount until January 1, 1922, as increments of only \$35 a year are allowed from 1920 to 1922. Therefore the minimum salary of New York City elementary teachers on January 1, 1920, will be \$935. This small increase from \$900 to \$935 shows by comparison with Boston how liberal the Boston school authorities are.

Under the teachers' demand of \$1,296 for a minimum salary Boston will rank first in the cities of the United States. Under the Finance Commission's plan of \$984 for a minimum salary, Boston will stand fourth; the only cities exceeding it will be Los Angeles, \$1,100, Denver, \$1,000 and Portland, Ore., \$1,200.

MAXIMUM SALARIES.

Boston at the present time stands nineteenth in the maximum salary which it pays its elementary teachers; five cities pay less, St. Paul, \$1,000; Louisville, \$1,050; Providence, \$1,105; Kansas City, Mo., \$1,350, and New Orleans, \$903.

Under the proposed plan of the School Committee, on January 1, 1920, Boston's rank will have advanced to the fourth place; the cities of New York (\$2,180), Newark (\$1,800), Cleveland (\$1,800) and Rochester (\$1,800) paying a larger maximum. Philadelphia, it must be added, pays \$1,800 as a maximum, but only to men teachers; women teachers in that city receive a maximum of \$1,400.

Under the teachers' demand of \$1,968 maximum, Boston would rank second, being outclassed by New York City, with its 1920 maximum of \$2,180.

Under the Finance Commission's plan of \$1,656 maximum, however, Boston would rank fifth in the cities of the country, only four other cities paying more than

the sum recommended, viz., New York, \$2,180; Newark, Cleveland and Rochester, \$1,800 and Portland, Ore., \$1,700.

IV.—PRESENT FINANCIAL SITUATION OF THE CITY. AND ITS FUTURE LIABILITIES.

It is futile to argue that the school teachers' problem is distinct from that of other city employees. In these days of social unrest and of constant striving for more compensation, a grant of more money to one group only whets the appetites of the others for a corresponding amount. The clerks have recently presented to the Mayor a strong request for 40 per cent. increase in their salaries and the library employees 25 per cent. Other groups of city employees have asked for salary increases as follows:

Laborers	From \$3.50 to \$5.00 a day.
Chauffeurs	From 4.00 to 6.00 a day.
Inspectors	From 1,400 to 1,800 a year.
Inspectors (7)	From 1,400 to 1,900 a year.
Gardeners	From 3.50 to 5.50 a day.
Subforemen *	From 1,300 to 1,600 a year.
Foremen	From 1,400 to 2,000 a year.
Sewer inspectors of construction	From 1,565 to 2,000 a year.
Sewer inspectors of maintenance	From 1,400 to 2,000 a year.
Matrons	From 14.00 to 18.00 a week.
Drawtenders	From 1,600 to 1,800 a year.
Drawtenders' assistants	From 1,400 to 1,600 a year.
Drawtenders' assistants	From 1,300 to 1,500 a year.
Bridge cleaners	Increase, 1.00 a day.
Subforemen, Public Works Department .	From 1,500 to 1,800 a year.

These groups do not include the county employees, and from present indications it is an assured fact that a concerted demand will also be made for further advances in their salaries. The present pay rolls of the city amount to practically \$20,000,000 annually.

If all these demands are met either partially or wholly, the city will face such a tremendous tax rate that a complete revision of the salary schedules of all employees must be made, or the development of the

* Park and Recreation Department.

city will be retarded for many years, as a tax rate of \$26 or \$28 is not impossible. The demands of the municipal employees alone call for an expenditure of \$3,000,000 and combined with the demand of the school teachers (\$2,500,000) would mean an addition of \$5,500,000 to the pay rolls of the city.

Besides the salary demands of city employees which will call for an increase of \$2 over the allowance at present assigned to city departments, there are other liabilities which the city may have to assume.

First, there is the large expense of the State Guard due to the recent police walkout. The estimated cost for the recent maintenance of the State Guard will be \$2,000,000, and it is possible that Boston will be called upon to bear a great part of this expense. Whatever assessment is made Boston will have for the next year or for some years to come an additional burden for tax-payers to carry.

Another additional expense is due to the \$100 bonus which was granted by the Commonwealth to veterans of the German War. The law provides for the assessment of \$5 poll taxes beginning next year (1920) and if a city does not collect its full quota, the deficit is assessed upon the city as a part of the state tax. What this amount may be is problematical, but judging from the ability of the city to collect a \$2 tax in the past, it is fair to assume that only 30 per cent. may be collected. This means that the real estate of the city will be obliged to stand the remainder, or 70 per cent., and the amount required for reimbursement to the state will increase the tax rate.

Furthermore the Special Commission on Street Railways has recommended that subway rentals be assessed on the cities and towns served by the Elevated. This would add still another item of expense to Boston tax-payers, because at the present time subway rentals are paid by the Elevated and furnish the money necessary for the payment of interest and sinking fund charges on the subway loans. In the event of the purchase of the

Cambridge Subway the annual rentals will approximate \$2,000,000, of which Boston would have to pay at least half. Another rise in the tax rate would therefore be necessary to cover the city's share of these payments, if the recommendation of the Special Railway Commission is adopted.

There are many other items of new expenditure which the city, of necessity, should make if Boston is to keep in the forefront of progressive cities. The Hospital Department needs enlargement and the ferry service should be improved. To make these improvements, however, requires additional money and it cannot be obtained if all the demands upon the city treasury are granted.

V.— THE DUTY AND FUNCTIONS OF THE SCHOOL COMMITTEE.

The School Committee is elected by all the people, women as well as men being entitled to vote for an election to this office, and under the laws enacted by the General Court is charged with the administration of the school system. It acts in a representative capacity for the whole community and is by vote of all the people authorized to expend such money for school purposes as the General Court may authorize.

One of its most important functions is to determine the salary schedule for its employees. This it has done and has requested the General Court to grant it authority to make the necessary appropriations to put the new salary schedule into effect.

The Finance Commission desires to direct the attention of the committee to the fact that the action of the school teachers in requesting a flat increase of \$600 in all grades is an attempt to oust the School Committee from its jurisdiction and authority in this important matter. They are in effect asking the General Court to decide what their salaries should be, irrespective of the decision of the duly constituted authorities. This

action, if successful, will establish a precedent that opens the door for a similar appeal by every class of public employees.

The commission believes that such proceeding is not in accord with our scheme of government and the orderly administration of our public affairs by the lawfully constituted authorities.

VI.—RECOMMENDATIONS.

The commission therefore recommends:

1. That the teachers' request for a flat \$600 increase be denied.
2. That the appropriating power of the School Committee for general purposes be increased 80 cents, an amount sufficient to grant the elementary assistants an increase of \$288, the amount requested by them in June, 1919, and to grant the other increases proposed by the School Committee reduced by 25 per cent., excluding all proposed increases to any employee whose present maximum is in excess of \$4,212.
3. That chapter 489 of the Acts of 1914 be amended so as to authorize the School Committee to appoint not more than five assistant superintendents.
4. That the pending bill be amended to take effect upon its acceptance by the Mayor and City Council.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

SECOND COMMUNICATION TO THE MAYOR

*in relation to*RESURFACING CERTAIN STREETS IN THE
ROXBURY DISTRICT WITH SHEET
ASPHALT.

BOSTON, December 5, 1919.

HON. ANDREW J. PETERS, *Mayor:*

SIR,—On October 31 the Finance Commission forwarded to Your Honor a report of its consulting engineer containing information regarding especially flagrant conditions existing in connection with the laying of sheet asphalt pavement on Conant street, in the Roxbury district.

As no attention appears to have been paid to the recommendations therein contained, and as the authorities in charge allowed the contract to proceed to completion under conditions similar to those objected to, the Finance Commission has caused an examination of the completed work to be made by Mr. Francis P. Smith of the firm of Dow & Smith, chemical engineers and consulting paving engineers of 131 and 133 East Twenty-third street, New York City. So much of Mr. Smith's report as relates to the contract for Conant and Smith streets follows. Mr. Smith's examination was made on November 19 last.

Conant Street, Huntington Avenue to Parker Street.—Foundation, old macadam. Type, sheet asphalt, binder, $1\frac{1}{2}$ inches; surface, $1\frac{1}{2}$ inches. Laid by Bermudez Company. Laid October–November, 1919, during stormy weather.

The contour of this street is very poor. The surface is wavy and in many places has received practically no compression. It was examined about 7 a. m. when the temperature was about 38 degrees Fahrenheit. Even at this low temperature the uncompressed portions of the surface could easily be

dug out with a dull knife, while the portions that had received only partial compression were as hard as stone. The second block east from Huntington avenue, which you informed me was laid during a heavy rain, is the worst section of this pavement and clearly showed that it had been impossible to rake the mixture properly under the existing conditions, and the surface was full of small hummocks and depressions. A pavement such as this will inevitably grind out under traffic during cold weather, where it is lacking in compression and water will collect in the hollows and cause rolling and early deterioration. Such a pavement cannot give the service which should reasonably be expected from it and no amount of patching can ever convert it into a first-class job. I would strongly recommend that it be rejected.

Smith Street, Huntington Avenue to St. Alphonsus Street. Smith Street, Phillips Street to Parker Street.—Foundation, old macadam. Type, sheet asphalt, binder, $1\frac{1}{2}$ inches; surface, $1\frac{1}{2}$ inches. Laid by Bermudez Company. Laid October-November, 1919, during cold but generally fair weather.

The contour of this street is poor and the surface in a number of places shows lack of compression and could be easily dug up with a knife. It cannot be regarded as a first-class piece of pavement, although it is better than Conant street. I would recommend that before accepting it all portions which are wavy and lacking in compression should be cut out and replaced by new material properly laid and compressed and that these repairs should not be made until warm and favorable weather in the spring.

Both these streets are typical examples of what may be expected when bituminous construction is carried on late in the season under unfavorable weather conditions. Unless the greatest care and skill are exercised and only favorable days selected it is impossible to obtain good results.

The mixture chills rapidly while in transit from the plant to the street. If sent out too hot from the plant in order to overcome this, it is liable to be burnt. If there is a strong wind blowing even though the thermometer be between 40 and 50 degrees Fahrenheit it will chill so rapidly when spread by the shovels that it will be impossible to rake it properly. Unless the steam roller is kept right on top of the rakers, a crust will be formed on top which it will be impossible to compress properly

and this will produce a honeycombed surface that will grind out under traffic, and hold water. Two rollers should always be used in cold weather, one to be kept continuously working close up to the rakers, and the other, a heavier one, to give final compression before the pavement loses its heat. Even if these precautions are observed it is difficult to secure a satisfactory contour and good joints and to avoid depressions which will hold water and rapidly accelerate the deterioration of the pavement. For these reasons pavements of this type should not be laid late in the fall unless it is absolutely necessary and only under the most strict and careful supervision. In many cases moisture or ice will collect in the interstices of the binder and will come up as steam through the hot top laid on it, making it impossible to properly compress it and tending to form innumerable hair cracks under the roller.

In consideration of Mr. Smith's report and the information already furnished by its consulting engineer, the Finance Commission recommends that no further payments be made to the Bermudez Company on account of the contracts for the paving of Conant and Smith streets until the defective portions of the work have been removed and replaced with proper materials and workmanship.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE COMMITTEE ON MUNICIPAL
FINANCE
in relation to
THE PROPOSED INCREASE IN THE TAX
LIMIT.

BOSTON, December 8, 1919.

To the Committee on Municipal Finance:

GENTLEMEN,—The Finance Commission presents your honorable committee with certain reasons against the passage of the bill filed by the Mayor of Boston, providing for an increase of \$5 in the tax limit for the years 1920, 1921 and 1922.

The purpose of this legislation is to increase the appropriating power of the City of Boston for the maintenance of city departments. The power of the city to appropriate money for current municipal activities is limited to an amount equal to the total sum of cash in the treasury at the beginning of the fiscal year, February 1, in conjunction with the estimated ways and means or revenue of the city for the ensuing year (which cannot be in excess of the actual revenues of the preceding year), together with an amount equal to the sum fixed by the Legislature as the tax limit upon each one thousand dollars of the average of the assessed valuations of the city for the preceding three years. The first two items are variable and depend upon the efficiency of the Collecting Department in collecting money due the city. The third item is fixed by the Legislature.

During the eight years prior to 1917 the average valuations of the city increased annually at the rate of \$30,000,000, which automatically provided an increase in the appropriating power of the city. The tax limit for city purposes and the maintenance of the city

departments (exclusive of the schools) varied from \$6.79 to \$6.32 per thousand during this period. The effect of the income tax law of 1916 was to exclude from these valuations the valuation of incomes and of intangible personal property. This change has substantially reduced the valuations and correspondingly decreased the appropriating power of the city, because the tax limit is figured upon these valuations in order to produce the amount of money which the City of Boston may annually spend.

The Legislature of 1918 granted the city an increase of \$3 in the tax limit for that year, which was alleged to be necessary in part because of the absence of any money in the treasury at the beginning of the fiscal year 1918 (the cash on hand at the beginning of the preceding year was \$1,182,721.64), the reduction in the appropriating power due to the reduction in the average of the assessed valuation and the increasing cost of labor, materials and supplies. It is to be noted that \$1 of this increase was to be used for the construction of streets by contract.

The Mayor petitioned for a similar increase for 1919 and it was granted by the Legislature. The only difference from the act of 1918 was that only 66 cents was required to be used for street purposes, and but 75 per cent. of that amount was required to be spent on contract work. The 1918 legislation provided a million and a half for street improvements by contract and the legislation of 1919 but \$750,000; 25 per cent. of the 66 cents, \$250,000, was appropriated for use by the labor forces, so that it was in effect used as an ordinary city appropriation.

The tax limit for 1920 is figured upon three annual assessments, from all of which the valuations of intangible personal property and incomes have been excluded. The average of the assessed valuations has therefore been smaller for each of the years 1918, 1919 and 1920, but from 1920 on — unless there is some further change in our system of local assessments — the average of the

valuations will increase from year to year as the annual valuations of the real estate and tangible personal property located in the city increase.

The Mayor states that his reason for asking the special session to authorize an increase in the tax limit for the three ensuing years is that it will give him opportunity intelligently to frame his budget for 1920, which, under the provisions of the city charter, must be submitted to the City Council within thirty days from the beginning of the fiscal year. It has not been possible to do this in the past, and the Mayor, to comply with the provisions of the charter, has submitted a budget in skeleton form and later, after a detailed examination of the budget requirements, has submitted to the City Council a supplementary budget setting forth in segregated form the requirements for the maintenance of the city departments for the year..

The Mayor's petition rests upon two points:

1. The cost of city government (salaries, materials and supplies) has increased to such an extent as to demand an increase in the appropriating power of the city.
2. The passage of the bill at the present session will allow the intelligent formation of the city budget and its presentation to the City Council at a much earlier period than formerly.

The Finance Commission admits the strength of the Mayor's position, but believes that the reasons against the passage of the bill are of greater weight. They are as follows:

The appropriating power depends to a large extent upon the efficiency of the Collecting Department in the collection of taxes due the city. If there is a large amount of money in the city treasury at the beginning of the fiscal year, the amount to be authorized as a tax limit is decreased. If the cash on hand amounts to \$1,500,000 it saves the necessity of increasing the tax limit by \$1. To state it in another way, the appropriating power of the city would be the same with no cash in the treasury and an increase in the tax limit of \$3 as

it would be if there were \$1,500,000 in the treasury and the tax increase was \$2. It is impossible to determine before the end of the fiscal year how much cash there will in fact be in the treasury at the beginning of the next fiscal year. It depends very largely upon the efficiency of the Collecting Department. The uncollected taxes now due the city amount to \$11,946,439.07 (December 1, 1919).

Up to the last two or three years the Collecting Department has collected annually about 82 per cent. of the amount of the taxes committed to it, and the collections have recently fallen to about 77.6 per cent. The Collecting Department states that this is in a large measure due to the high prices that money had brought in the market during the last two years and that large taxpayers have found it better business to use their money in other affairs and not pay the city, but allow the 6 per cent. interest to accumulate.

The failure of the present collector to gather only 77 per cent. of the tax warrant is the principal reason why the present Mayor is obliged to ask for an increase each year in the tax limit. Other mayors forced their city collectors to achieve over 80 per cent. and thus prevented an appeal to the Legislature. If the present City Collector was forced to adopt more vigorous measures for collection by a refusal of the Legislature to grant the Mayor his immediate petition, it would result in a greater collection of taxes. If, however, the easier way of securing money is adopted by piling upon the present taxpayer who pays his taxes promptly an increased tax burden, the Collecting Department will not reform its methods and the prompt taxpayers will be loaded with a further tax. It is unjust to the latter that his share of the city's expenses should be constantly increased when the city is content to administer its tax affairs upon inefficient standards.

The Finance Commission realized many months ago that the organization of the Collecting Department was unbusinesslike and that the assignment of deputy col-

lectors at \$1,800 a year to clerical work for nine or ten months in the year prevented the collection of taxes. The commission therefore arranged (June 3, 1919) with the municipal division of the State Bureau of Statistics to reorganize the methods of the Collecting Department, so as to bring more collections into the city treasury, but the Mayor failed to take advantage of the arrangement and the project was abandoned. The Mayor now asks that the tax limit be raised.

That Boston is particularly negligent in the matter of tax collection is shown by a comparison of other cities and towns of the Commonwealth where businesslike collectors annually collect all of the tax warrant, and in some cases have a clean sheet before the new tax warrant arrives.

The following table shows the relative activity of selected cities in the Commonwealth:

CITIES.	Real Estate. (Per Cent.)	Fixed Personality. (Per Cent.)	Polls. (Per Cent.)	Final Realty Sale After Receipt of Tax Warrant.
Boston.....	99.5	97.5	33-35	Two years.
Springfield.....	100.0	99.7	100.0	Trifle over one year.
Fall River.....	99.9	99.0	87.6	June following com- mitment.
Newton.....	100.0	*	91-92	Nine months.
Worcester.....	100.0	92.0	92.0	Eleven months.
New Bedford.....	100.0	95.0	85.0	First and final twenty months.
Lynn.....	99+	98+	90.0	Sixteen months.

* Practically all.

While Boston shows finally a collection that compares favorably with other municipalities, except as to polls, the promptness of the collection in Boston is much below the average of these other cities. That is the reason why Boston's uncollected balance of taxes every year is very large. This point is strikingly illustrated when the present (1919) tax warrant collection of Boston is compared to some of the cities exhibited above.

Thus, on December 1, 1919, Boston had collected

only 76.5 per cent. of its tax warrant, while Lynn had collected 79 per cent., Springfield, .78.9 per cent., and Haverhill, 88.3 per cent.

Boston in its poll tax collection is extremely ineffectual. It only collects approximately 33 to 35 per cent., whereas the cities and towns above cited collect a much larger percentage. If the policy of the city of Springfield in collecting its poll taxes were adopted by the City of Boston, viz., sending to the deputy sheriff for collection all uncollectable poll taxes, it would result in a much better percentage.

If modern business methods were adopted by the Collecting Department, and these amounts promptly collected, there would be no need of any appeal to the Legislature for additional appropriating powers, as the city would have a large sum of money to meet expenses and the increased demands for labor, materials and supplies. Then the demands of city employees for increased salaries could be considered by the city with sufficient cash on hand to meet increased requirements.

The commission believes that if the pending petition of the Mayor is refused it will force the administration to adopt prompt measures for the collection of city money and thus throw upon the Collecting Department its proper duty of collecting taxes and city bills.

If the Collecting Department were spurred to greater action by a refusal to favor the city, so that it will be forced to help itself, the amount of money on hand at the beginning of the next fiscal year may be large enough to render unnecessary any increase in the tax limit. This is not an impossibility, considering the large sum (\$11,572,313.25) outstanding on the city's books for both taxes and bills on January 31, 1919. Of this amount \$8,470,023.29 represented tax assessments (realty, personality and polls).

The Mayor states that the estimated amount of cash on hand on February 1, 1920, will be \$500,000, but this assumption is predicated upon the inactivity of the Collecting Department. It therefore seems to the com-

mission more just and equitable to the prompt taxpayer of Boston that the pending legislation be given leave to withdraw and the City Collector thus forced to adopt the business policy of Springfield, Newton, etc., so as to provide Boston with funds sufficient to meet its requirements before the beginning of the new fiscal year. Then the Legislature of 1920 can consider the Mayor's request for additional sums and the public will be made aware whether any innovations have been introduced in the Collecting Department.

The City Council has also contributed to the financial predicament of the city by failing to pass the ordinance submitted by the Mayor for increasing the market rents, and by failing to pass the ordinance for consolidating the charity departments and the correctional department at Deer Island, which the commission believes would make substantial savings possible.

There are other reasons against the present consideration of the bill. While undoubtedly its enactment at the present time would allow the Mayor to prepare his budget earlier than formerly, there are many reasons against judgments based upon such hasty preparation of the figures presented to your committee. The Mayor has offered in support of his need for \$5 to the present tax limit the increases asked for in the departments' requests for 1920. These requests were made in response to a circular note from the Mayor, but the direction to the heads of the departments for the preparation of the data was so general in its tenor that the departments in making up their requests could not have based their figures upon any solid foundation. The figures must be taken as approximations only and do not constitute the mature judgment of the department heads.

Thus, for example, the Reserve Fund is figured at \$600,000 for 1920, while last year \$357,816 was appropriated.

Appropriation for granolithic sidewalks of \$50,000 is requested for 1920, when only \$25,000 was appropriated

for 1919-20. Appropriations in excess of \$250,000 over those of the last year for street improvements are made in the projected budget and represent an increase hardly justified by the demands for other legitimate expenditures.

The Finance Commission wishes to direct the attention of the committee to the fact that an increase in the tax limit will produce an increase in house rents. Such a rise occurred last year and if a further increase in the tax rate is made this year the occupant of the tenement, of the apartment house, of the lodging room, and of the business office will become the bearer of the burden. In the past years the supply of rentable accommodations in Boston exceeded the demand, but the present cessation of building operations in Boston has reversed the condition, so that the demand exceeds the supply, and such changed conditions place in the hands of the owners the opportunity and power of transferring to the tenants any increases in their tax burden.

The commission therefore believes that:

1. The present petition of the Mayor should be referred to the next General Court.

In case the committee is averse to this recommendation the Finance Commission presents a subsidiary one:

2. That the tax limit of the city be fixed for 1920 only at \$9.52.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

YEAR.	TAX ASSESSMENTS.			TAX COLLECTIONS.			Percentage of Assessments of Previous and Current Year Collected.	Tax Balances Uncollected on January 31.
	Uncollected February 1 of Previous Years.	Current Year (less abatements).	Total.	Of Prior Years.*	Of Current Years.†	Total.		
1909-10.....	\$6,224,382 16	\$22,455,734 85	\$28,680,067 01	\$2,680,911 98	\$19,356,330 47	\$22,037,242 45	76.8	\$6,842,824 56
1910-11.....	6,374,901 56	23,151,572 07	29,526,473 63	2,846,522 19	18,081,954 97	22,328,477 16	77.3	6,697,986 47
1911-12.....	4,965,093 55	23,500,106 62	28,465,200 15	2,678,469 55	20,598,120 50	23,276,590 05	81.1	5,183,610 10
1912-13.....	5,198,477 88	24,414,907 87	29,613,385 75	2,620,949 21	21,315,628 92	23,836,478 13	80.8	5,876,907 62
1913-14.....	5,380,370 77	26,125,225 33	31,515,596 10	2,945,549 84	22,672,792 98	25,618,252 82	81.3	5,897,343 28
1914-15.....	4,922,002 32	27,020,702 32	31,942,704 64	2,844,255 84	23,134,930 42	25,979,186 26	81.3	5,963,518 38
1915-16.....	5,587,198 02	28,237,260 40	33,834,458 42	3,561,163 63	24,351,101 48	27,912,265 11	82.5	5,922,193 31
1916-17.....	5,568,193 02	28,765,676 28	34,333,874 30	3,489,526 22	24,955,128 05	28,444,654 27	82.8	5,889,220 03
1917-18.....	5,799,922 04	26,008,737 44	31,808,659 48	3,122,661 58	21,179,975 28	24,302,636 86	76.8	7,506,022 62
1918-19.....	6,582,104 41	31,752,554 60	38,334,659 01	4,002,330 95	25,772,163 31	29,774,494 26	77.6	8,560,164 75
1919-20.....	8,470,319 33	.....	.....	.....	.....	.....	.....	.....

* Figures in this column represent twelve months' collections.

† Figures in this column represent collections from about October 1 to February 1, in case of real and personal taxes.

COMMUNICATION TO THE MAYOR

*in relation to*THE ERECTION OF A NEW BUILDING AT
RAINSFORD ISLAND AND THE ABANDON-
MENT OF THE SUFFOLK SCHOOL FOR
BOYS.

BOSTON, December 13, 1919.

HON. ANDREW J. PETERS, *Mayor:*

SIR,— The Finance Commission is informed that you have before you for approval a proposed contract with the Aetna Construction Company for the erection of a new building for the Suffolk School for Boys at Rainsford Island, to replace the structure destroyed by fire on February 13, 1919. The building is designed to provide additional accommodations, including a shoe shop, library, recreation room, office, sewing room, gymnasium, sanitary and shower room, locker room and eight sleeping rooms for officers. Under the proposed contract the building will cost at least \$138,000.

The commission desires to place before Your Honor the following facts in relation to the Suffolk School at Rainsford Island:

On February 1, 1911, the Finance Commission, in response to a request of the then Mayor, submitted a report recommending that the Suffolk School for Boys be discontinued. This report contains a careful analysis of the situation as it then existed. (See Finance Commission Reports, Vol. VII., p. 41.)

On June 2, 1915, the Finance Commission again recommended that the Suffolk School on Rainsford Island be abandoned. (See Finance Commission Reports, Vol. XI., p. 200.)

This recommendation of the Finance Commission is in accord with the sentiments expressed by the Board of

Trustees of the Children's Institutions Department on many occasions in their annual reports, that the site at Rainsford Island was unsuitable and the accommodations obsolete and inadequate. The reports of the trustees for 1898 and every year thereafter up to 1911 have condemned the conditions at Rainsford Island and have said, "Is it not time that the city cease to spend its money upon buildings unsuited to their use?" This recommendation has been reiterated by the trustees, stating that it must be only a question of time when the city abandons this waste of money.

The commission understands that Your Honor is in sympathy with the proposition to abandon the institution and transfer its inmates to state institutions, but you have been informed that the state accommodations for feeble-minded and defective delinquents under the age of twenty-one are crowded, with no present prospect of relief, and that therefore it is necessary to continue the Suffolk School for Boys until the state is in a position to take over its inmates.

The Finance Commission has indicated to the chairman and two of the trustees of the Massachusetts Training Schools a way in which the trustees may transfer to unoccupied buildings of state institutions a large number of the minor wards now under their charge. These trustees believe the suggestion to be feasible and if adopted will provide sufficient state accommodations for the present population of the Suffolk School at Rainsford Island. The present delinquents at the island could then be examined for parole, the balance transferred to the state department, and the Boston trustees instructed not to accept any more commitments from the courts which, under the statute, is necessary before a refusal to accept any more commitments to the school can be made. The institution would thus automatically pass out of existence and the city would save at least \$50,000 of the annual appropriation of \$84,155.50 and the proposed capital expenditure of \$138,000.

In view of the fact that the state has charge of all

minor delinquents except those in the Suffolk School for Boys, and that the city is contributing, through its payment to the state tax, thirty per cent. of the cost of the custody, care and education of all state minor delinquents (which in 1919 amounted to approximately \$547,035) — Boston's share amounts annually to \$164,110.50 — and besides is bearing the entire cost of the Suffolk School for Boys (1919, \$84,155.50), the present financial condition of the city makes it essential that steps should be taken to procure the abandonment of the Suffolk School for Boys at Rainsford Island and allow the state to take over the work now done there.

The city does not maintain a school for delinquent and feeble-minded girls. They are cared for by the state. There is no reason why the boys should not also be cared for by the state. The care of the insane is now recognized as a state obligation; delinquency among adults as well as minors is more and more conceded as a question for the Commonwealth to administer and not local communities.

The location on Rainsford Island is a bad one. During the winter months the trip is severe and at times impossible. It is the consensus of opinion of those who have knowledge of the requirements for the proper care of these unfortunates that Rainsford Island should be abandoned.

The season of the year and the location at Rainsford Island render it impossible for the work under the proposed contract to be properly carried on during the next few months. If the city invests \$150,000 in new equipment for Rainsford Island it must be because the city authorities have decided that it should be maintained and that other large sums of money should hereafter be expended in order properly to equip it.

The question of the ability of the state to furnish proper accommodations for the inmates of the Suffolk School can be definitely decided within the next two or three months, during which period it would be impossible

to make any progress on the work under the contract before Your Honor for approval.

The commission recommends:

1. That Your Honor refuse approval of the proposed contract for new buildings at Rainsford Island.
2. That a bill be introduced in the Legislature providing for the abandonment of the Suffolk School for Boys at Rainsford Island.
3. That the trustees for the Massachusetts Training Schools be requested to take such steps as may be necessary for the state to acquire sufficient accommodations to take over the care of the present inmates of the Suffolk School for Boys.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE GENERAL COURT
in relation to
INCREASING SCHOOL TEACHERS' SALARIES.

BOSTON, December 15, 1919.

*To the Honorable the Senate and House of Representatives
 in General Court Assembled:*

GENTLEMEN,— The Finance Commission sends herewith a copy of its report * to the Committee on Municipal Finance, relative to the petition of the School Committee of the City of Boston for an increase in its appropriating power of \$1.03 per thousand on the average assessed valuations of the city for the preceding three years, to provide necessary funds to grant increases to its employees on the basis of schedules submitted by the School Committee, and relative to the bill filed by the teachers requesting a flat increase of \$600 in all grades.

The commission is informed that the present school salary schedule and other provisions made for the teachers, which are set out in detail in its report, constitute the most liberal provisions granted by any municipality in the nation for teaching forces.

The city appropriated this year \$8,451,234.44 for school purposes and \$21,928,445.42 for the maintenance of all city and county departments exclusive of the schools. If the increased appropriating power requested by the School Committee is granted, the expenditures for the schools in 1920 and succeeding years will be in excess of \$10,000,000 per annum. If the teachers' requests are granted the annual cost would be increased to at least \$11,000,000.

The Legislature of 1918, upon petition of the School Committee, granted a substantial increase in its appropriating power which has been used by the School Com-

* See pages 213-231.

mittee for salary increases. These increases took effect September 1, 1918. The following table is submitted to show the increases granted on September 1, 1918, to the elementary assistants who constitute the great majority of the teachers of the city, and the compensation to be received by these teachers if the proposal of the School Committee becomes effective:

TEACHERS ENTERING SERVICE NOVEMBER 1, 1917.

	Old Schedule.
Salary provisions at date of entry	\$600
September 1, 1918, increase to	696
November 1, 1918 (anniversary)	792
November 1, 1919 (anniversary)	888
January 1, 1920 (proposal of School Com- mittee)	1,272
November 1, 1920 (anniversary)	1,368
	744

This table shows that under the salary schedule in existence at the time of entry, November 1, 1917, the teacher after three years of service would be in receipt of compensation at the rate of \$744 per annum, whereas by reason of the increase granted on September 1, 1918, and the increase proposed by the School Committee to take effect January 1, 1920, these teachers on November 1, 1920, will be in receipt of \$1,368.

The following table shows the salary increases granted on September 1, 1918, to elementary teachers on maximum on November 1, 1917, and the increases proposed by the School Committee to be granted January 1, 1920:

November 1, 1917	\$1,176
September 1, 1918	1,368
January 1, 1920	1,752

The elementary assistants in June of this year requested an increase of \$288, which in the opinion of the Finance Commission is the increase which these teachers should now receive. The commission is of the opinion, in view of the present high tax rate (\$23.60) and the possibility of a reduction in the future in the

cost of living, that considering the other provisions made for the benefit of the teachers of Boston (noncontributory pension system and year's leave of absence on half pay after every seventh year of service) this amount of \$288 would be an adequate increase, especially as the majority of the elementary teachers, who constitute the bulk of the teaching force, have not yet reached their maximum salary and would receive in addition to this increase of \$288 their annual increment for the year 1920 of \$96, or a total of \$384.

Another factor to which the Finance Commission wishes to direct your attention is found on pages 216 and 217 of its report, where a detailed discussion is set forth as to the small number of teachers abandoning the profession for a business career. In addition to the twenty-seven teachers who resigned to enter business during the two-year period of 1918-20, up to October 6, 1919, there were 122 more resignations, as follows:

NUMBER.	Men.	Women.	Reasons.
80.....		80	Married.
15.....	6	9	Teaching.
7.....		7	Religious.
2.....		2	War work in France.
18.....	2	16	Miscellaneous.*

* Poor health, discharges, pensioned, adequate income without teaching.

The total resignations of 149 teachers in two years, only twenty-seven of whom left for business positions and fifteen for higher paying teaching positions in other cities cannot be characterized as a very serious situation.

At the hearing before the Committee on Municipal Finance it was brought out in the general questions asked by members of the committee that the subject of teachers' pay is becoming a state-wide question, because as one community advanced its schedule, surrounding communities either followed suit or lost good teachers who were attracted to the nearby higher paying community.

The campaign by the Boston teachers for increases of \$600 has produced unrest in other communities. The Governor has appointed a committee of six persons to study and report March 1, 1920, on the subject of pay for school teachers throughout the state, so as to determine proper salary standards for teachers. This study will accordingly present conclusions that may be acceptable for all communities in the state.

The commission believes that the present Legislature would deal justly with the teachers and the taxpayers if an increase of \$288 were now granted to the elementary teachers and increases to other members of the School Department in proportion.

In view of these facts the Finance Commission recommends that the increase in the appropriating power of the School Committee be limited to 80 cents, which will be sufficient to provide an annual increase of \$288 to the elementary assistants and 75 per cent. of the amount proposed for the other employees of the School Committee, except those whose present maximum salary is in excess of \$4,212, to whom in the opinion of the Finance Commission no increase should be granted.

The bill of the School Committee increases its appropriating power for general purposes from \$4.38 to \$5.37, an addition of 99 cents; and increases its appropriating authority for physical education from 8 cents to 10 cents, and its appropriating authority for the employment of doctors and nurses from 6 cents to 8 cents.

To accomplish the recommendation of the Finance Commission 23 cents should be deducted from the amount requested by the School Committee; 22 cents of this amount should be deducted from the increase requested for general purposes, as outlined in sec. 1, paragraph (a), and 1 cent from physical education, as outlined in sec. 2, paragraph (d), so as to read as follows:

SECTION 1. (a) For general school purposes: for the financial year ending on the thirty-first day of January, nineteen hundred and twenty, four dollars and eleven cents; for the financial year ending on the thirty-first day of January, nineteen

hundred and twenty-one, and for each financial year thereafter, five dollars and fifteen cents.

SECTION 2. (d) For organizing and conducting physical training and exercises, athletics, sports, games, and play and for providing apparatus, equipment and facilities for the same in buildings, yards and playgrounds under control of said committee, or upon any other land which the committee may have the right to use for this purpose under the provisions of chapter two hundred and ninety-five of the acts of nineteen hundred and seven; for the financial year ending on the thirty-first day of January, nineteen hundred and twenty, 8 cents, and for the financial year ending on the thirty-first day of January, nineteen hundred and twenty-one, and for each financial year thereafter, 9 cents.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE MAYOR

*in relation to*THE LAYING OF GRANOLITHIC SIDEWALKS
IN WINTHROP SQUARE, CHARLESTOWN.

BOSTON, December 19, 1919.

HON. ANDREW J. PETERS, *Mayor:*

SIR,—In accordance with your request of December 4, 1919, the commission caused its consulting engineer to make an examination of the work of the laying of granolithic sidewalks in Winthrop square, Charlestown, by J. C. Coleman & Sons Company under an alteration in their contract, dated July 29, 1919, and transmits with its approval his report thereon.

The Finance Commission further finds that the Park and Recreation Department caused its landscape architect, Arthur A. Shurtleff, to make an examination of the need for laying granolithic sidewalks, and upon receipt of his report in favor thereof voted on November 19, 1919, subject to the approval of Your Honor, that an order be issued to the contractor to do this work at the price of \$2.25 per square yard. This order was transmitted to you for approval and on November 20, in advance of receiving your written approval, the contractor was ordered to proceed.

The commission finds that the price to be paid the contractor for this work is a fair one.

The commission recommends that Your Honor issue an executive order that no order for doing work under an alteration of contract, or for the purchase of materials and supplies where the amount involved is estimated

to be in excess of \$1,000, be issued until the actual receipt of the approval of the Mayor in writing.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

BOSTON, December 6, 1919.

To the Finance Commission:

GENTLEMEN,—I return herewith the letter of His Honor the Mayor, dated December 4, 1919, relating to an extension of a contract made by the Board of Park and Recreation Commissioners for the work of improving Winthrop square in the Charlestown district, and respectfully report as follows:

An appropriation of \$14,000 was made by the City Council on May 28, 1919, by transfer from the surplus income of the Parkman Fund for the improvement of Winthrop square. The Park Department prepared plans and specifications and publicly advertised the work. The bids received indicated that the cost of the work would be more than the available appropriation and certain changes were made in the schedule of quantities and the work was readvertised. In this second competition figures were submitted that brought the cost of the work, including incidental expenses, within the available appropriation, and the contract was made for the work with J. C. Coleman & Sons Company, dated July 29, 1919.

As the work progressed it appeared that the total appropriation would not be necessary to complete the work under the contract and the Park Commissioners considered it advisable to devote the surplus of the appropriation to replacing the existing brick sidewalk around the square, outside of the fence, with a granolithic sidewalk, similar to the one constructed under the contract inside the fence.

Three items of the contract pertain to the construction of a sidewalk, as follows:

Item 1.— Existing sidewalks to be taken up	\$0.30 per square yard.
Item 4.— Earth excavation	2.00 per cubic yard.
Item 6.— Concrete walk, including 9-inch cinder or gravel foundation	2.25 per square yard.

The contract plans indicate that only the existing sidewalks within the area surrounded by the fence were to be removed, that is, the old tar concrete sidewalks. There would be a greater amount of labor involved in removing this material than for a brick sidewalk, and there would be no salvage value from the material. According to the prices contained in the contract as above scheduled, the cost of replacing the brick sidewalk outside of the fence with a concrete sidewalk would have been approximately \$3.14 per square yard, made up as follows:

Taking up old sidewalk	\$0.30 per square yard.
Earth excavation	59 per square yard.
Laying new walk, including foundation	2.25 per square yard.
	<u><u>\$3.14</u></u>

The total cost of the work would have exceeded the available appropriation. In this contingency the Board made an arrangement with the contractor whereby he would do all the work necessary for laying the sidewalk, including removing the old sidewalk and earth excavation, for the price bid under Item 6 for concrete walk. I assume that the contractor was able to make this offer on account of the fact that the sidewalk to be removed was brick, and the bricks, which became the property of the contractor, were of sufficient value to reimburse him for the cost of the necessary excavation, for which he would receive no direct payment.

The fact that tools and machinery were already on the ground and no additional expense would be involved on account of moving the same to the site of the work was perhaps also a consideration.

In consideration of the conditions and inquiry regarding the prices paid for similar work in other departments of the city, I am of opinion that the price agreed upon was a reasonable one for the work and less than would have been secured had new bids been asked for at this time of the year. As regards the necessity for doing the extra work, I am unable to form an intelligent opinion, as the old brick sidewalk has been so far removed as to prevent the forming of an opinion of its original condition. The work at the present time is about 90 per cent. completed.

Respectfully submitted,

GUY C. EMERSON,
Consulting Engineer.

COMMUNICATION TO THE MAYOR
in relation to
THE PURCHASE OF CAST-IRON
CATCH-BASIN TRAPS.

BOSTON, December 20, 1919.

HON. ANDREW J. PETERS, *Mayor*:

SIR,— The Finance Commission transmits herewith a report from its consulting engineer relative to the purchase of cast-iron traps.

The commission believes that if these traps were included in the annual contract for castings a substantial amount would be saved to the city.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

BOSTON, December 11, 1919.

To the Finance Commission:

GENTLEMEN,— Your attention is respectfully called to what seems to be an opportunity to save a substantial sum of money by a change in the method of securing cast-iron traps for the equipment of catch-basins built by the Sewer Service of the Public Works Department.

The purpose of these traps is so to cover the outlet from the catch-basin into the street sewer as to prevent sticks, stones and other debris from entering the sewer. There are many designs for such traps, in fact nearly every large city has a different design. All, however, are substantially equal in merit as regards accomplishing their purpose.

In Boston the type principally used is known as the Higgins trap. This apparatus has been in almost

universal use in Boston for twenty-five years or more. The records of the Patent Office show regarding this invention as follows:

Sewer trap, patent No. 403,106, Daniel Higgins, Boston, assignor, to himself and J. J. Costello, May 14, 1889.

So far as I can find there have been no renewals of this patent and there seems to be little question that the patent expired many years ago. After the death of Mr. Costello, who was formerly a clerk in the Sewer Department and afterwards a well known real estate man in Boston, the trap was handled by another gentleman well known in City Hall circles, Mr. William H. Carberry. After his death and at the present time the traps have been sold by the New England Broom and Supply Company, J. J. Finn, proprietor.

For the season of 1918 traps were purchased as follows:

Traps with hooks, 173 at \$9.50	\$1,643 50
Traps without hooks, 125 at \$9.50	1,187 50
Hooks, 74 at 75 cents	56 00
Total	<u>\$2,887 00</u>

For the present season, 1919, there has been a large increase in the amount purchased to date, it being as follows:

Traps without hooks, 839 at \$9.50	\$7,885 00
Sheehan traps, 50 at \$8	400 00
Hooks, 548 at 75 cents	419 25
Total	<u>\$8,704 25</u>

The use of the Sheehan traps is a new departure and I am informed that they are to be used in connection with surface drains exclusively. I am also informed that they are easier of installation than the Higgins traps and protect the sewers equally well.

I understand that the estimate of the Sewer Service for 1920 is as follows:

Sheehan traps, 250 at \$8	\$2,000 00
Higgins traps with hooks, 550 at \$10.25	5,637 50
Total	<u>\$7,637 50</u>

There is nothing in connection with the construction of the Higgins traps that requires unusual skill and the patent having expired there is apparently no reason, either of law or ethics, why the city should not have these traps manufactured on its own account.

The weight per trap is approximately eighty pounds. The price for similar castings for the present year is from 5.5 cents to 6 cents per pound. Allowing 6 cents per pound, each trap would cost \$4.80, including the hook, a saving of \$5.45 to the city on each trap, or a total saving for 800 Higgins traps of \$4,360.

Respectfully submitted,

GUY C. EMERSON,
Consulting Engineer.

COMMUNICATION TO THE MAYOR

*in relation to*THE AMOUNT EXPENDED FOR REPAIRS ON
THE STEAMER "GEORGE A. HIBBARD"
DURING THE PAST FEW YEARS.

BOSTON, December 23, 1919.

HON. ANDREW J. PETERS, *Mayor:*

SIR,— In accordance with your request of recent date, the Finance Commission has caused its consulting engineer to make an examination of the amount expended for repairs on the steamer "George A. Hibbard" during the past few years and transmits with its approval his report thereon.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

BOSTON, December 12, 1919.

To the Finance Commission:

GENTLEMEN,— I return herewith the letter of His Honor the Mayor, dated December 10, and schedule submitted by him showing the approximate charges for repairs of the steamer "George A. Hibbard" for the series of years 1911 to 1919, inclusive, and respectfully report as follows:

The "George A. Hibbard" went into service, after receiving its last repairs for the present year, on December 11 and is said to be in first-class condition. At the present time, therefore, it does not appear necessary to make another examination of the boat, as it has been frequently examined by me, and the Finance Commis-

sion has on one or two occasions employed specialists to make examination in connection with the repairs of previous years.

Considering first the request of the Mayor for advice as to whether the care of the boat has been what it should be, the Finance Commission has on several occasions considered the matter of the seemingly large repairs which have been made and certain accidents that possibly might have been avoided. The power plant of the boat, as has been frequently stated, is of the high speed type, more suitable for a pleasure yacht than for the boat in which it is installed. The cost of repairs, therefore, is larger than it probably would have been had a more rugged type of engine been installed originally. In consideration of the arduous service under which the boat operates, particularly in the winter season when it encounters storms and ice in the harbor and rough seas at Long Island wharf, the Finance Commission has not seen fit to criticise seriously the care which has been given to the boat, or to ascribe the large repair bills to flagrant neglect and incompetence on the part of the crew.

The total estimated expenditure for the present fiscal year, as estimated by the Infirmary Trustees, will be \$8,507.28. Of this amount the following amounts are on account of repairs during the season of 1918-19.

Bertelsen & Petersen Engineering Company, miscellaneuous work	\$856 69
Boston Marine Works, for retubing condenser	1,332 00
Frank J. Gethro, for boat hire	1,060 00
	<hr/>
	\$3,248 69

Deducting this amount from the total estimated expenditure leaves \$5,258.59 properly chargeable to the present season's repairs.

Expert advice which I have secured indicates that the cost of repair work is from two and one half to three times as much as for the year 1914. It will therefore

be seen that the repairs during the current year have not been exorbitant as compared with normal years, when the increase of prices is taken into consideration.

I have examined the schedule of repairs made and find nothing to criticise, as practically all of the items seem to have been routine items that may be expected from year to year, with the exception of one or two items. The amount of extra work also does not seem to be unusual, although some of the items should have been anticipated if a careful examination had been made. If all of the items of extra work had been anticipated and included in the original estimate, possibly a week or ten days might have been saved in the time that the boat was out of service. This time does not appear to have been of great importance, except that there has been some inconvenience which has been a cause of complaint by persons whose transportation to and from the island has been curtailed.

As regards the comparison of the Mayor's letter between the original cost of the boat, \$36,907.87, and the cost of repairs for a period of eight years, approximately \$25,000, it, of course, should be taken into consideration that the cost to duplicate the "George A. Hibbard" at the present time would probably be in excess of \$75,000.

Respectfully submitted,

GUY C. EMERSON,
Consulting Engineer.

COMMUNICATION TO THE MAYOR

in relation to

THE INSTALLATION OF OIL-BURNING APPARATUS UNDER THE BOILERS AT THE CITY HOSPITAL.

BOSTON, December 29, 1919.

HON. ANDREW J. PETERS, *Mayor*:

SIR,—The Finance Commission forwards herewith a report made by its consulting engineer, at the request of the trustees of the City Hospital, regarding the economies that might be obtained from the installation of oil-burning apparatus under the boilers of the power plant at the City Hospital.

In consideration of this report there seems to be little doubt that a very great saving can be accomplished by the installation of such apparatus.

The Finance Commission believes that it would be advisable for the city to install oil-burning apparatus at the City Hospital, after a study of details has been made, as recommended in the report of its consulting engineer.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

BOSTON, November 29, 1919.

To the Finance Commission:

GENTLEMEN,—I submit herewith a report containing information regarding the financial effect of installing oil-burning equipment under the boilers of the power plant at the City Hospital and the using of oil as fuel in the place of coal.

The details of the subject are such that they should be considered by a mechanical engineer, expert in work of the sort. For example, I find that there are several types of burners, each of which is particularly adapted for use according to the character of the plant. For low temperature steam production one type of burner is particularly adapted, for higher pressure another type, and for very high pressure a third type. Some types secure the greatest efficiency from water tube boilers, while other types are particularly adapted for horizontal return tube boilers. The present report, therefore, is not intended to advocate any particular type of burner or method of installation, but to show the approximate cost and savings that might accrue from the installation of any of the better types of burners, of which there are a number on the market.

In preparing this report I have received valuable information from the Fess Rotary Oil Burner, Inc., Daniel J. Hurley & Co., representing the Best Burner, and the Hammel Oil Burner Equipment Company, Inc., who have furnished me with estimates of cost of installing their apparatus. The total cost of installation of oil burners is uncertain. If the fire protection authorities allow the present existing coal bunker to be remodeled for oil storage, I estimate the total cost, including engineering supervision, at approximately \$25,000. If a new storage tank is required the total cost, including a 200,000 gallon tank, will be approximately \$40,000.

The plant at the present time consumes an average of approximately 10,000 tons per year of bituminous coal. At the present time this coal delivered in the bunkers costs approximately \$9.15 per ton. Fuel oil at the present time would cost approximately \$1.60 per barrel of 42 gallons delivered in tanks, and I have estimated four barrels of oil to be approximately equal in calorific value to one ton of bituminous coal of the quality ordinarily used.

All of the companies with whom I have consulted

are in substantial agreement regarding the items from which economies will be obtained by the installation of oil-burning equipment, although their estimates differ somewhat regarding amounts. Their estimates also differ materially in the cost of installing their equipment.

I have consulted with various people having in charge the protection of the city against fire, particularly the office of the Fire Prevention Commissioner at the State House, and, according to the consensus of opinion, it will be necessary to equip the plant with a storage tank either entirely underground or, if projecting above the ground, covered with at least three feet of earth. This would prevent the use of the present new coal bunker at the City Hospital, which the superintendent suggests might be remodeled for the storage of oil. The cost of a storage tank of approximately 200,000 gallons capacity would be in the neighborhood of \$20,000, depending upon the physical conditions encountered in construction. The cost of remodeling the present coal bunkers for oil storage is difficult to determine at the present time, although it may be roughly estimated at \$5,000, or a total difference of \$15,000 less for the cost of installation, if by any possible contingency the authorities in charge of fire protection should be persuaded to allow the storage of oil above ground and the use of the present coal bunkers remodeled for the purpose.

The present boiler plant at the City Hospital is composed of four water tube boilers of a rated capacity of 300 horse power each; three horizontal return tube boilers of a rated capacity of 125 horse power each, and one horizontal return tube boiler of a rated capacity of 150 horse power. The water tube boilers are equipped with automatic stokers of the Murphy type, while the horizontal return tube boilers are hand-fired. This equipment, on account of the different types of boilers, furnishes unusual complications as regards the best type of burner to be installed.

The greatest single source of economy is from the labor charge. At the present time the plant has three

firemen and one coal passer on each shift, operating in three shifts of eight hours each. Apparently it would be possible to dispense with the services of one fireman and one coal passer on each shift. If this were done the saving would be as follows:

Firemen, 52 weeks at \$90 a week	\$4,680 00
Coal passers, 52 weeks at \$66 a week	3,432 00
Total labor saving per year	<u>\$8,112 00</u>

The commission will readily realize, in view of past experience, the opposition that will be made to the discharge of any of the men now employed, and for this reason I have serious doubts if the estimated theoretical saving on account of wages would be secured in practice.

The second large source of possible economy is on account of the less cost of oil as compared with coal. Considering the calorific value of coal on a basis of 10,000 tons per year with an average heat of 14,500 British thermal units per pound, there would be required 52,800 pounds of oil, or 5,268 barrels, of a heat value estimated at 18,500 British thermal units per pound. On this basis there would be a yearly saving of approximately \$6,900 for fuel. Just how long this saving would continue is a matter of doubt. At the present time there are at least five oil companies erecting expensive plants in the vicinity of Boston for the manufacture of oil products and the furnishing of fuel oil. Oil-burning equipment is rapidly being installed in power plants of all of the cities along the Atlantic coast and there is little question that within a comparatively few years the cost of oil will so rise as to cross the dividing line as compared with coal. This effect will be hastened by any reduction in the price of coal, which is problematical at the present time. This situation is admitted by all of the people whom I have consulted who are conversant in the matter. The present low prices of oil cannot, I believe, be guaranteed for more than two years.

As a third saving, one at least of the oil companies has submitted an estimate in excess of \$4,000 on account

of the increased thermal efficiency secured by methods of firing with oil over the methods used with coal. This consideration is distinct from the difference in heat units which has already been taken into consideration in comparing the saving.

This saving is largely due to the fact that in firing with coal, particularly with hand-firing, furnace doors are opened for a considerable portion of the time, admitting large quantities of cold air, with the result that fires are cooled, causing material loss of efficiency. In hand-fired boilers this may amount to as much as 5 per cent. of the total efficiency of the boilers. As regards the boilers having automatic stokers, I doubt if any such increase in efficiency can be obtained.

Such expert advice as I have obtained in the matter indicates that with automatic stokers approximately the same increase of efficiency can be obtained as with oil-burning apparatus; there is no question, however, that an increased efficiency could be obtained from the four horizontal return tube boilers, the financial saving herein estimated being \$2,115 per year.

Fourth in importance is the saving on account of the elimination of the cost of removing ashes. Although no charge is made to the City Hospital by the Public Works Department for this service, the cost to the city is approximately \$2,000 per year.

A small saving is possible, due to the elimination of the present cost of maintenance of the automobile stokers, amounting to perhaps \$480 per year.

To summarize: In my opinion the annual savings that might accrue from the installation of oil-burning equipment is approximately as follows:

Decreased cost of labor	\$8,112 00
Decreased cost of fuel	6,900 00
Increased thermal efficiency	2,115 00
Cost of removing ashes	2,000 00
Stoker maintenance	480 00
Gross saving	<u>\$17,607 00</u>

Against this saving there must be debited the fixed charges on the cost of the installation, amounting to approximately \$5,000, in case a new storage tank has to be built for the oil, and approximately \$2,800, if the present coal bunker can be remodeled for the use of oil, making a net annual saving of \$12,607 in the first case and \$14,807 in the second case.

Concerning the probable future effect collectively of the items above scheduled on the city's finances, all of the items of saving, except the price of oil, seem certain to continue for an indefinite period. The price of oil will not increase for at least two years, as guaranteed contracts for that period can now be obtained at the price herein quoted. In any case there seems little likelihood of the cost of oil rising above the equivalent cost of coal during the life of the existing boiler equipment at the City Hospital.

Assuming, therefore, that the saving in the price of fuel will be eliminated after a few years, there will still remain a substantial annual saving from the other and permanent items, sufficient in my opinion to warrant the installation of oil-burning equipment.

It should be taken into consideration that the supply of oil at some price will probably be less affected by strikes limiting production and affecting transportation routes than would the price of coal; also that by the use of oil smoke nuisance would be entirely eliminated.

Respectfully submitted,

GUY C. EMERSON,
Consulting Engineer.

COMMUNICATION TO THE MAYOR
in relation to
THE PURCHASE OF BATHING SUITS AND
TOWELING MATERIAL FOR THE PARK
AND RECREATION DEPARTMENT.

BOSTON, January 2, 1920.

HON ANDREW J. PETERS, *Mayor*:

SIR,— The Finance Commission has investigated the purchase of bathing suits from The Horace Partridge Company and toweling material from Thomas Butler & Co. by the Supply Department for the Park and Recreation Department, and reports as follows:

I. BATHING SUITS.

The Superintendent of Supplies on April 30, 1919, received private bids and samples from six dealers in bathing materials for different types of bathing suits desired by the Park and Recreation Department. One of his reasons for soliciting private bids was to check the prices charged for bathing suits by the Massachusetts Prison Commission. Under the law the city is obliged to purchase goods from the Prison Commission if the commission can supply them. The Massachusetts Prison Commission offered to supply all except two of the types of suits requested by the Park and Recreation Department, and in accordance with the law a purchase was made.

Mr. Hugh C. McGrath, the general superintendent of the Park and Recreation Department, who was in charge of the selection for his department, after having examined the samples submitted by the several concerns as stated above, recommended the purchase of swimming trunks and pool suits from The Horace Partridge Company.

In accordance with this recommendation the former Superintendent of Supplies on May 20, 1919, sent The Horace Partridge Company the following letters:

CITY OF BOSTON, SUPPLY DEPARTMENT,
CITY HALL ANNEX, May 20, 1919.

HORACE PARTRIDGE COMPANY, 49 Franklin Street, Boston,
Mass.:

Attention of MR. CONWAY.

DEAR SIR,— Referring to our conversation kindly arrange to deliver 870 dozen swimming trunks at a price of \$1.75 per dozen to the Park and Recreation Department, care of Mr. McGrath. Regarding information for sizes of same please take this matter up with Mr. McGrath.

Very truly yours,

T. J. DAWSON,
Superintendent of Supplies.

CITY OF BOSTON, SUPPLY DEPARTMENT,
CITY HALL ANNEX.

HORACE PARTRIDGE COMPANY, 49 Franklin Street, Boston,
Mass.:

Attention of MR. CONWAY.

DEAR SIR,— Confirming conversation of even date, kindly arrange to deliver to the Park and Recreation Department, care of Mr. McGrath, account of order 11972, 69 dozen pool suits, price \$10.50 a dozen. Kindly arrange for information regarding sizes of same with Mr. McGrath.

Very truly yours,

T. J. DAWSON,
Superintendent of Supplies.

These orders amounted to \$2,247, as follows:

69 dozen (828) pool suits at \$10.50 a dozen	\$724 50
870 dozen (10440) swimming trunks at \$1.75 a dozen	1,522 50
	<u><u>\$2,247 00</u></u>

The swimming trunks were delivered to the city on June 7, 1919, and the pool suits on June 30, 1919.

The requisition referred to in the above letter ordering 69 dozen pool suits is as follows:

BOSTON, March 28, 1919.

To the Superintendent of Supplies:

Please order the following supplies, to be delivered at North End Park:

- 25,000 fig leaves.
- 5,000 swimming trunks.
- 1,500 women's suits.
- 1,500 men's suits.
- 1,000 girls' suits.
- 1,200 jersey pool suits.

In advertisement state the city reserves the right to accept or reject any or all proposals, or, to accept any item *in toto* or in part.

McGRATH.

Yours truly,

JAMES B. SHEA,
Chairman.

per D. J. B.

Bids were not called for by public advertisement because it was found that the Massachusetts Prison Commission could supply most of the suits.

The requisition of March 28 was evidently not treated as covering the purchases from the Partridge Company, as on October 29, 1919, requisitions were issued by the Park and Recreation Department as follows:

Order No. 13197	. . . . .	69 dozen pool suits.
Order No. 13198	. . . . .	440 dozen trunks.
Order No. 13199	. . . . .	430 dozen trunks.

The former Superintendent of Supplies stated that Mr. McGrath promised to forward requisitions at the time of the order in May, but failed to do so. The former Superintendent of Supplies also failed to state any reason for not requesting the authority of Your Honor to make this contract without advertising, except that he did not realize the seriousness of the matter. He further stated that he told Mr. McGrath that the

bills would be held up until he received requisitions in such form as would permit payment in amounts less than \$1,000.

Mr. McGrath was unable to state any reason for the delay in forwarding the requisitions.

II. TOWELING MATERIAL.

The Park and Recreation Department received this year an appropriation of \$5,300 under Item C-7 of the budget for the purchase of towels. This sum was allowed. It is an annual expenditure, due to the large losses of towels during each season, which it is estimated by the department this year amounted to 40,000 towels.

Mr. McGrath testified that he received a call in January, 1919, from a representative of Thomas Butler & Co., offering to sell second-hand bags at 25 cents a bag which, if cut and hemmed, would be suitable for towels. This would provide towels at a much cheaper price than new towels or new toweling material could be obtained in the market.

On January 8, 1919, Mr. McGrath forwarded a request to the Park Department for an order of 1,000 bags at 25 cents each. A requisition on the Supply Department was issued on this request of Mr. McGrath's and the bags were delivered by the Butler Company to the Dover Street Bath House, where they were washed, cut, hemmed, stitched and stenciled by the women there employed, three towels being made from each bag.

On February 6 and March 12 requisitions were again issued on written requests of Mr. McGrath for 1,000 and 3,900 bags, respectively. Mr. McGrath stated that the amount ordered by the last requisition was fixed at 3,900 because of the desire of the department to obtain at once the largest number of bags possible without the delay incident to advertising for bids. It is to be noted that the latter purchase amounted to \$980, or \$20 below the statutory limitation of \$1,000 on unadvertised contracts. It was later decided by

the chairman of the Park Department and Mr. McGrath to make a further purchase of the entire quantity which the Butler Company then had in stock, amounting to 14,000 or 15,000 bags.

Having determined to make these purchases from the Butler Company, the chairman of the Park Department authorized Mr. McGrath to confer with the then Superintendent of Supplies relative to the purchase. As a result of this conference the superintendent in April requested private bids from several dealers in second-hand bags in this part of the country and as far south as New Orleans. The invitation called for used white bean bags, material to be 14 or 16 ounce. Two bids only were received, one from the Bell Bag Company of 63 Front street, New York City, at 18 $\frac{1}{4}$ cents, for a lighter bag, and one from Butler & Co. of 28 cents for the bag which had heretofore been sold to the city in small lots for 25 cents. The Butler bags conformed to the prescribed weight and fulfilled the requirements of the invitation.

Mr. McGrath reported that the Bell bag was too light and accordingly it was rejected. He then conferred with the Superintendent of Supplies and as a result Mr. McGrath ordered Butler & Co. to send the bags to the Dover Street Bath House. He further stated that he understood the Superintendent of Supplies would obtain the necessary authority from the Mayor to make the purchase without advertising. The authority was not requested. The orders, however, were given to the Butler Company by Mr. McGrath and the following shipments were made:

May 5	.	.	.	.	.	3,500 bags.
May 6	.	.	.	.	.	3,000 bags.
May 7	.	.	.	.	.	1,500 bags.
May 10	.	.	.	.	.	3,500 bags.
May 13	.	.	.	.	.	2,500 bags.
						<u>14,000 bags.</u>

The former Superintendent of Supplies stated that his reason for not publicly advertising this contract was that the Park and Recreation Department wanted the Butler bag, and that Mr. Burke, the manager of the Butler Company, stated that he would not bid on an advertised contract. Mr. Burke confirmed this statement, explaining that he would not have bid if the contract had been advertised, as he was getting better prices for these bags from hotels and restaurants than the price to the city. This statement he corroborated by showing orders for towels, made by him from similar bags, from many hotels and restaurants at prices considerably in excess of the price to the city, after deducting the cost of labor in making the bags into towels.

The former Superintendent of Supplies stated that he was unable to give any reason for not requesting authority from the Mayor to award this contract without advertising.

No requisition was issued by the Park and Recreation Department for the purchase of these 14,000 bags until September 27, 1919, when four requisitions were issued as follows:

No. 13039	3,500 bags.
No. 13040	3,500 bags.
No. 13041	3,500 bags.
No. 13042	1,283 bags.

The apparent purpose of issuing these requisitions was to supply a foundation for the approval of the bill of Thomas Butler & Co. for the sale of these bags, which remained unpaid, although the bill was submitted to the department at the time of the delivery of the bags in May, 1919. The total of the requisitions issued by the Park and Recreation Department to the Supply Department call for the purchase of 17,683 bags. As a matter of fact the city has received 19,683 bags, 2,000 more than the requisitions called for.

The former Superintendent of Supplies admitted that the Butler Company's bill was held up pending the receipt of the requisitions. Neither Mr. Shea, the

chairman of the Park and Recreation Commission, nor Mr. McGrath gave any reason for the issuing of split orders on September 27.

The Finance Commission finds:

1. That the prices agreed upon for bathing suits and bags were fair.
2. That the general superintendent of the Park and Recreation Department failed to forward requisitions to the main office in proper course before the purchase of the bathing suits and the bags.
3. That the orders forwarded by Mr. McGrath to the main office were split to bring the amount of each under \$1,000.
4. That the requisitions issued by the Park and Recreation Department, requesting the Supply Department to purchase the bathing suits and bags, were split to bring the amount of each order under \$1,000.
5. That the former Superintendent of Supplies ordered or authorized the purchase of these materials without having proper requisitions therefor.
6. That the former Superintendent of Supplies violated the city charter in failing to obtain written authority from Your Honor to award the contract for the purchase of 14,000 bags and the bathing suits without advertising.

The Finance Commission recommends:

1. That the Supply Department be instructed not to purchase materials or supplies in advance of receiving proper requisitions therefor from the department on whose account the purchase is made.
2. That heads of all city departments be officially notified by Your Honor that any infraction of the statutory requirements prescribing advertising for contracts of \$1,000 or over will be dealt with summarily.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

COMMUNICATION TO THE MAYOR
in relation to
THE COLLECTION OF REFUSE IN THE CONTRACT DISTRICTS OF THE CITY.

BOSTON, January 16, 1920.

HON. ANDREW J. PETERS, *Mayor*:

SIR,— The Finance Commission submits herewith a brief report regarding the operation of the new form of contract for collecting city refuse in the suburban districts during the year 1919–20, according to which payment has been made to the contractor on a cubic yard basis, instead of on a monthly lump sum basis as in previous contracts.

Appended to this report is a report from its consulting engineer that treats the matter in greater detail.

Previous to the letting of the contracts for the fiscal year 1919–20, the Finance Commission submitted to Your Honor, under date of January 31, 1919, a report stating its objections to the form of contract that it was proposed to use and suggesting certain changes. Again, on February 7, 1919, the Finance Commission sent to Your Honor a private communication, especially emphasizing the importance of its previous report, in which it used the following language:

The Finance Commission does not believe that your subordinates have placed the facts before you in such a manner that you realize the importance of changing this provision, and therefore requests the privilege of a personal interview to explain its views on this and some other matters.

This interview was held on February 12, 1919. Notwithstanding these reports and the interview, contracts were let with the method of payment as proposed instead of as recommended by the Finance Commission.

Certain changes, however, were made in the phraseology of the contract and specifications which greatly improved these documents, as instruments for protecting the city's interests, over the original draft.

The result of the year's work appears to have justified the prediction of the Finance Commission in practically all details. There seems to have been no improvement in the service rendered to citizens and as regards the offal contract of the Dorchester district there appears to have been poorer service than formerly.

The net financial result has been an increase of approximately \$45,000, the greater part of which accrued in the Dorchester district. About \$40,000 of this amount is for increased payments to the contractors and approximately \$5,000 is the increased cost of supervision, about one half of which is due to raises in pay.

An examination of the form of contract and specifications proposed for the ensuing year shows that substantially all of the provisions criticised in the 1919-20 form have been reinserted in that for 1920-21, including those specifications that were changed by the advice of the Finance Commission, as well as those that were changed voluntarily by the officials of the Public Works Department.

The provisions which appeared in the original draft of the 1919 contract and were eliminated after objection by the Finance Commission and which now appear in the form of the 1920 contract and the objections of the Finance Commission are as follows:

1. In the event that any employee shall abstract from any material collected in the Dorchester district under this contract any salable material, the contractor shall dismiss him forthwith and the contractor shall not again employ on the work any employee dismissed pursuant to the foregoing provisions.

The objection of the Finance Commission to this provision is:

This provision is clearly for the benefit of the Boston Development and Sanitary Company, to whom the refuse is deliv-

ered, and for that company alone. According to the provisions of the same paragraph it appears that the city may even cancel the contract in case any of the contractor's employees abstract salable material from the refuse. There seems to be no reason for this drastic provision, as the matter of the cancellation of the contract seems to be fully covered in Article 6, page 11, of the contract form. It would seem to be an absurdity, even if legal, for the city to cancel a favorable contract because one of the contractor's employees took some article of small value from the refuse, thereby decreasing to the Boston Development and Sanitary Company, a party entirely independent of the contract in question, the sale value of the material.

2. The contractor shall collect the paper in the Dorchester district at least once each week separately and deliver same to paper plant, located at 309 Southampton street, Boston.

The objection of the commission to this provision is as follows:

This place is the disposal station of the Boston Development and Sanitary Company, and to haul paper to this station rather than to deliver it at the Dorchester transfer station at Commercial Point would add about three team miles for each load in excess of the average haul to the Commercial Point station and return. The extra cost to the city of this provision is difficult to estimate, but it probably will not be less than \$5,000. In any case the excess cost will be an entirely useless expenditure for the city.

Moreover, the specifications of the 1920 form provide that the refuse shall be dumped at several named locations and that other fills may be added or substituted by the commissioner. This specification would authorize the selection of a dump so far from the point of collection as to require a haul of several miles. On the objection of the commission a similar provision was stricken from the 1919 form.

The provision of the 1919 contract that the contractor

shall properly cover carts so that none of the materials will be scattered along the streets is so radically changed in the 1920 form as to leave the obligation of the contractor vague and indefinite.

In view of the financial results of the methods employed in 1919-20, and the fact that no increase of efficiency has been secured, the Finance Commission recommends that the suggestions contained in its report of January 31, 1919, be incorporated in the contract forms at present being issued to contractors, so far as these suggestions apply; and also that the provisions be so framed as to make it possible for a contractor to know where he is to deliver the refuse and how long a haul will be entailed. Otherwise the bidders will be obliged to include a large amount for contingencies which would be unnecessary under a contract form definite in its provisions.

In view of the large and, as the commission believes, fictitious increase in the quantity of refuse collected, especially in the Dorchester district, it is doubtful if a contractor would bid as low a price as he would have bid had the experiment of paying on the cubic yard basis not been tried. Nevertheless, a change in the specifications whereby offal is paid for by weight and other refuse either according to a monthly lump sum payment or by weight would result in a great financial saving to the city without any disadvantage to the citizens served.

The Commissioner of Public Works states that the reason for the transfer of Sewer Service employees to the Dorchester district of the Sanitary Service was to obtain evidence as to certain claims made by the disposal contractor, the Boston Development and Sanitary Company, as to improper methods used by the contractor for the Dorchester district in the collection of garbage.

The commission recommends that the present form of contract offered to bidders be withdrawn and bids

requested on a form of contract redrafted to meet the objections of the commission, as set forth in this report and in the report of January 31, 1919.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

BOSTON, January 15, 1920.

To the Finance Commission:

GENTLEMEN,—Complying with instructions given by the chairman, I respectfully submit herewith the results of my investigations into the operation of the new method of payment for the collection of ashes, garbage and other household refuse according to which annual contracts were made for collecting such refuse in the suburban districts for the year 1919-20.

As the commission is aware, previous contracts for such work have always provided that the contractor should be paid at a uniform rate per month for collecting whatever refuse was produced by householders. In the contract in question it is provided that payment will be made at a price per cubic yard for refuse collected.

The Finance Commission on January 31, 1919, submitted to His Honor the Mayor a report protesting against the method proposed, calling his attention to contingencies that would arise under such a contract, and especially calling His Honor's attention to the fact that there was great danger of a large increase in cost. The Finance Commission followed this public report with a private letter to the Mayor, dated February 7, 1919, in which it called His Honor's attention to the previous report and again emphasized its objection to the form of contract proposed. The commission also had a conference at the Mayor's office on February 12, 1919, at which the new form of contract was discussed.

Notwithstanding the advice given in the various reports and at the conference mentioned, the contracts were made including the objectionable method of payment, although certain changes were made in the phraseology of the specifications, as recommended by the Finance Commission. The most important recommendation, however, was neglected.

The contracts are now about to expire and the results can be estimated within very close limits.

As a financial matter it appears that the total cost will be increased from \$202,408.64, the cost under the form of contract used in 1918-19, to approximately \$240,000 in the present fiscal year 1919-20. In addition, there will be an increase in excess of \$5,000 for supervision; about one half of this sum is on account of additions to the supervisory force, and one half on account of raises in pay.

The Finance Commission during the recent Christmas vacation employed a number of engineering students from the Institute of Technology to investigate conditions relating to refuse collection in the different sections of the city, especially in the Dorchester district. These investigators knew nothing of the localities from which complaints have been received, but were instructed to make their inquiries at random. The consensus of the information obtained indicates that without doubt the collection of garbage or house offal has not been improved under the new form of contract.

Many complaints were made that collection methods have become so bad that in the summer season it has been necessary to dispose of garbage by burning it in cook stoves, in order to avoid a nuisance, and that during the cold seasons frequent periods of as much as three weeks have elapsed without the garbage being collected, notwithstanding the fact that the contract provides that regular collections shall be made twice each week.

As regards the ashes and miscellaneous refuse, although some complaints were made, the consensus of

information is that during recent years collections have been in general regular and satisfactory, and that there has been no noticeable change over previous years.

A comparison of the figures showing amounts of each kind of refuse collected in past years with the estimated amount for the present year, 1919-20, is given in the following tables:

Table I.
CUBIC YARDS OF ASHES COLLECTED BY CONTRACT.

DISTRICTS.	1915.	1916.	1917.	1918.	1919.	Per Cent. of Increase.
East Boston.....	48,750	53,700	57,400	42,200	50,000	
Brighton.....	42,072	57,588	59,945	69,570	60,000	
West Roxbury.....	27,024	28,596	34,580	33,055	37,000	
Dorchester.....	135,970	152,562	127,725	134,130	175,000	30
Hyde Park.....	10,514	12,076	15,160	14,940	20,000	

Table II.
CUBIC YARDS OF OFFAL COLLECTED BY CONTRACT.

DISTRICTS.	1914.	1915.	1916.	1917.	1918.	1919.	Per Cent of Increase.
East Boston.....	5,568	5,313	5,271	3,913	4,743	4,600	
Brighton.....	6,830	7,354	8,978	5,476	7,056	5,500	
West Roxbury.....	4,515	4,742	4,868	3,867	3,571	4,000	
Dorchester.....	19,495	19,502	19,626	21,300	17,304	30,000	73
Hyde Park.....	1,554	2,023	2,711	1,880	1,638	2,000	

Examining the first table, which shows the cubic yards of ashes collected for a period of five years, the commission will note that for the East Boston district there has been a reduction below the average for previous years. This result is, in my opinion, due to the fact that the district is a comparatively small one, in which all of the work is supervised by a single inspector who is particularly efficient. Were he otherwise, any unusual increase in collection would be for him to

explain. As a result the conditions obtained under former contracts have been insisted upon, especially as regards the density of the load as placed by the contractor in his carts.

Almost exactly the same conditions are found in Brighton, which is a comparatively small district. The amount of refuse collected has been practically the same as for previous years.

In the West Roxbury district, under similar conditions, a slight increase is shown, but not more than might be expected from perhaps the most rapidly growing suburban district of the city.

In Dorchester, however, the increase has been from 134,130 cubic yards in 1918, about the average of previous years, to 175,000 cubic yards in 1919, an increase of approximately 30 per cent.

There has been no increase in building operations in Dorchester to cause such an increase, and the most reasonable cause that can be ascribed is the one pointed out in the Finance Commission's report previously mentioned, that the contractors have made their team loads lie as lightly as possible in the carts, in order to secure the greatest number of cubic yards. The evidence obtained by the Finance Commission's investigators, as well as admissions by subordinates of the Public Works Department, shows that this is one of the principal causes for the increase and not the greater weight of refuse collected.

The contractor is being paid for the cubical contents of his carts when level full. Therefore it is not in the interest of the contractor to heap up his loads. The measurement is made by the inspector after the cart or truck has been filled before its start for the dump and not at the dump. As a consequence many loads as delivered at the dump are much below a full cart load, on account of the shaking and settlement during transmission.

A suggestion has been made by a subordinate of the Public Works Department that the increases in cubic

yardage shown for the present year may be because figures for previous years were calculated from the "level full" capacity of the carts, although in fact many loads were crowned and contained more than the rated capacity of the carts. This matter of crowning loads has been investigated several times and shown to be of small importance in accounting for such discrepancies as are now under consideration.

No evidence was obtained by the commission's observers of dishonesty on the part of the employees of the city or the contractor. I believe that the above reason is the principal cause of the increase in yardage and that there has been little, if any, increase in tonnage over the year 1918.

Incidentally, the Finance Commission's investigation has shown that the inspectors in the Dorchester district in some cases are very lax in their duties as to requiring the contractor to clean up rubbish which has been spilled on the sidewalks, streets and the premises of producers. Conditions were observed by the commission's employees of flagrant cases of spilling ashes and other materials in the presence of inspectors with apparently no protest on the part of the inspectors; neither was the contractor obliged to remove the material.

As regards the figures for the collection of offal shown in Table II., similar conditions are shown in Table I.

In East Boston the number of cubic yards collected has been below the average of previous years. In Brighton the amount has also been below the amount for previous years. The same condition obtains in West Roxbury, but in Dorchester there has been an increase from 17,304 cubic yards in 1918 to 30,000 cubic yards in 1919, an increase of approximately 73 per cent.

The neglect to compact loads cannot be given as a reason for this remarkable increase to the same extent as for miscellaneous refuse. Garbage in itself is a wet, soggy material, which settles to about its greatest density

under any conditions and, as a matter of fact, it has not been customary, on account of the insanitary character of the work, to attempt to compact loads of garbage by tramping.

There has been no increase in population in Dorchester to warrant even a small percentage of the increased yardage of garbage, and information from various sources, including the investigation of the Finance Commission's employees, has shown beyond reasonable doubt that there has been no improvement in the collection service to warrant such an increase. The increase, therefore, must be attributed to other causes.

The president of the Boston Development and Sanitary Company has during the year complained frequently that employees of the contractor for the collection of garbage were mixing paper, ashes and other light and bulky materials with the garbage in order to increase the yardage. The price paid to the contractor for garbage is \$2.10 per cubic yard. It is apparent, therefore, that the above is a reasonable theory for accounting, in part at least, for the additional amount of garbage collected. The contractor would receive \$2.10 per cubic yard, as garbage, for the material for which the contractor for ashes and paper receives only 58 cents per cubic yard.

Although the Finance Commission's investigators were cautioned to look after this matter particularly, they did not obtain any proof that the garbage collector followed the practice charged, at least to any great extent. The separation of the ashes from garbage by the householders was generally found to be good, and in only one case was an employee of the garbage collector detected in placing among the garbage a barrel of ashes and paper, and in this case there was a considerable mixture of garbage also.

The short time allowed for the investigation and the fact that after the first day the collectors probably knew they were being watched may account for the results obtained.

The only other plausible explanation for this immense increase in the yardage of garbage collected is that dishonesty exists either in the force of the contractor or in the city's supervisory force or in both.

As regards both the ash collection and the garbage collection, such an investigation as has been possible seems to show that, taking into consideration the different lengths of haul to dumping places, the present contractor's force of men, teams and trucks is no more than the equivalent of the force employed by the previous contractor. This is to a certain extent evidence that no more weight of material was collected than in 1918.

As a result of all the evidence obtained, I believe that the predictions of the Finance Commission in its report of January 31, 1919, have been sustained, and that an emphatic recommendation should be made to His Honor the Mayor that the system of collecting by cubic yards be abandoned, and that a return be made either to the old system of a lump sum payment or that the payment be made by weight, the weighing to be done at the various places of final disposal.

As regards the garbage, there can be no objections to a system by weight that would to any great degree offset the advantages obtained. The garbage all goes to one place of disposal and I am informed that the city now has scales at this disposal station, although they have not been in order for weighing purposes for seven months.

As has already been shown, the present method of payment for garbage collection offers an incentive to a contractor to mix with the garbage, paper, boxes, barrels, excelsior and other light materials which greatly increase his yardage, without greatly increasing the weight of his team loads. If the method of payment by weight was adopted the incentive would be in the opposite direction, as the material above mentioned would occupy a large space in the teams to the exclusion of garbage, although little weight would be added. There-

fore the system of paying by weight would tend to eliminate the features regarding which the disposal contractor now complains.

As regards the ashes, weighing facilities would not be as convenient, although they could be obtained even though it was necessary to purchase an equipment of portable scales, to be transferred from one locality to another as dumps became filled. I believe, however, that a return to the old lump sum payment method would be advisable, particularly as the information obtained shows that it was equally as satisfactory to the householders as the present method.

As regards the specifications in the contract for the ensuing year, which are now being given out to prospective contractors, it appears that substantially all of the provisions objected to in the form for 1919-20 have been reinserted, including such as were eliminated by advice of the Finance Commission, and also that new objectionable insertions and changes have been made.

For example, in the contract (page 16) for ashes and refuse, the dumping places provided have been reduced and an examination shows that some of them will answer for only a short time. The provision that other fills may be added or substituted is so changed as to allow the commissioner to substitute other dumps, even though they be beyond the limits of the Dorchester district. Following in the same paragraph attention is called to the fact that under the terms of the contract between the Boston Development and Sanitary Company and the city all refuse collected in the Dorchester district becomes the property of the Boston Development and Sanitary Company. This is perhaps a fact, but there seems to be no reason for its insertion in this place; certainly the material does not become the property of the company until actually delivered to it.

The attention of bidders is also called to the fact that any refuse collected in the district must be delivered to the Boston Development and Sanitary Company at

approved locations. This is simply a variation from the effort made in the original contract of 1918 to force delivery of material to the Development Company at points outside the limits of the Dorchester district and to have its right to receive the material recognized.

There is no indication as to who is to approve the locations, although it may be assumed that the Commissioner of Public Works would be the arbitrator under the general powers given him in the contract.

In my opinion the above quoted provisions make the contract what is commonly known as a "closed contract," upon which only a specially favored bidder can submit a bid without allowing such an amount for contingencies as to cause his bid to be unreasonably high and, as a consequence, unsuccessful.

In addition to the costs for refuse collection herein before definitely stated there is a still further cost, the amount of which cannot at present be definitely stated, but which may increase the total cost for the year by two or three thousand dollars. This additional cost is due to salaries of unnecessary employees of the Sewer and Water Services who have been transferred to the Sanitary Service in the Dorchester and Brighton districts, although their salaries are still being paid by the services from which they came. At present there are about thirteen such employees, with a monthly expense of approximately \$1,400.

Respectfully submitted,

GUY C. EMERSON,
Consulting Engineer.

COMMUNICATION TO THE MAYOR
in relation to
**THE OPERATION AND MANAGEMENT OF
THE CITY'S PRINTING PLANT.**

BOSTON, Mass., January 22, 1920.

HON. ANDREW J. PETERS, Mayor:

SIR,—The Finance Commission transmits with its approval the report of James H. Smyth, Esq., on the operation and management of the Printing Plant.

The commission has conferred with Mr. Smyth and Mr. Lawler, the superintendent of the Plant, relative to the recommendations of its examiner, and is of the opinion that a very substantial annual saving, possibly \$40,000, may be made if the recommendations of Mr. Smyth are adopted. The superintendent concurs in this opinion.

The commission finds that the superintendent has conducted the Plant economically and efficiently; that he has endeavored to reduce expenses, has purchased supplies and materials with intelligence and at a low cost, and has displayed initiative in subletting a portion of the premises covered by the lease that is not now needed by the Plant, which has reduced the net rental from \$8,220 to \$6,900 a year.

The superintendent believes the recommendations of Mr. Smyth feasible and is willing to adopt them if authorized by Your Honor.

The commission is also of the opinion that if the county printing is done at the Plant, as provided in the legislation for which Your Honor has petitioned the General Court, a further saving may be effected.

The commission recommends:

1. That the Superintendent of Printing be authorized to make such changes in equipment as may be necessary to put the recommendations of Mr. Smyth in effect.

Respectfully submitted,

THE FINANCE COMMISSION,
by GEORGE A. FLYNN,
Chairman.

BOSTON, MASS., January 5, 1920.

MR. GEORGE A. FLYNN, *Chairman,*
Boston Finance Commission:

DEAR SIR,— In accordance with instructions in your communication of November 29, 1919, I have made an investigation of the City of Boston Printing Department, and as my findings thereon beg leave to submit the following:

The past history of the Plant is, of course, well known to the Finance Commission, especially in view of the fact that the commission conducted a most searching investigation into its affairs on at least one occasion, and has access to the reports of such other investigations as have been made from time to time.

For the purpose of this report it is enough to say that the Plant has had a varied history. For the first ten years or so of its existence it was a municipal scandal, as well as being a losing enterprise from a business standpoint. In 1908 a change of policy was made, and there has since been an earnest endeavor to conduct the Plant's affairs on a business basis. The various superintendents having charge of its affairs during this latter period have all proceeded on practically the same lines in their endeavor to make the Plant render to the city that service which was the purpose of its origin. The Plant's business has always been conducted on what is known as a "revenue basis." That is to say, it has not been in the receipt of appropriations from the city

treasury, but has been operated to all intents and purposes like a private contractor, having as customers the forty-odd city departments. It has been the custom to bill work to these departments at cost, plus a reasonable profit, and such surplus as has resulted from this method has been from time to time diverted from the Printing Department and used for other city purposes.

The Printing Department has always received loyal support from the various city administrations. Successive Mayors have used their influence generously to force printing work, for which the city pays, into the Printing Department. The result is that all city departments under the Mayor's control and a number of those not under his control, including a number of county offices, have their printing work performed by the Printing Department. While this practice has been excellent from the standpoint of the Printing Department, the question appears to have arisen in the minds of a number of people whether or not the Plant, even as at present conducted, really serves the other city departments as well and as cheaply as a private contractor might.

While it is true that the profits the Plant makes are available for other city uses, at the option of the Mayor, there would, of course, be no logic in the situation if the Plant made these profits above costs considerably higher than general conditions in the printing trade might warrant.

My survey has been most searching as regards the operation of the Plant during the period since June 1, 1919. I have reviewed costs and charges on 2,443 printing jobs performed during this time, have calculated costs and profits, and have ascertained unit costs for the period under review.

- The 2,443 charges show an average profit of 15.8 per cent., which is not a high percentage for a small number of jobs, but is probably higher than the percentage earned by the average commercial house would be on so large a number. This is so because the Plant does not have to maintain a selling organization and has no

bad debts. In my opinion the prices charged for printing work by the department are not exorbitant, but it is also my belief that costs may be reduced by a rearrangement of the Plant and by certain changes in equipment, which I will outline in detail in a separate report.

Conditions in the printing industry at large are most unsettled. The great increases in the cost of labor and materials in all other lines have affected this industry also. Especially is this the case with labor costs. Wages of all classes of printers in Boston have advanced nearly 50 per cent. during the past year, with the prospect of still further advance in the immediate future, and there is nothing to show that the limit of wage advances is even in sight. At the present moment wages run per individual from \$33 to \$36 per week, with the prospect of an immediate advance to about \$40. When it is considered that in New York City some classes of printing employees are receiving more than \$50 per week at this moment, the difficulty of the problem of the Printing Department may be readily understood. The operations of the municipal budget may have a tendency to stabilize wages to a limited extent, but even this check is not absolute. Of course private concerns are similarly affected by these conditions, and this fact should be borne in mind in considering the operations of the Printing Department.

Labor cost in the Plant is high. The workers are paid the union scale of wages, and nominally work 48 hours a week. It is a practice to grant the Saturday half-holiday, and this is done with very few exceptions throughout the year. Each employee receives two weeks' vacation, with pay, and the Plant grants them time off on holidays as well. If a workman worked 48 hours for 52 weeks, the total for the year would be 2,496 hours. The Saturday half-holiday reduces this by approximately 200 hours per year. Two weeks vacation and 11 legal holidays reduce the figure by 184 hours more. Printing experts say that at least one third of the remaining time is nonproductive. If this is so, the

city receives only about 1,400 productive hours per man per year. If the wages are taken as \$35 per week, it may readily be figured that the productive hour labor cost is about \$1.30. When in addition to this we consider rent, light, heat, power, clerical work, superintendence, interest on the investment, depreciation, etc., it is probable that the productive hour cost to the City of Boston is nearly \$2. Private concerns do not ordinarily pay for vacations, holidays or Saturday half-holidays.

If conditions require that the city pay its employees for time not worked, then an extra effort should be made to recover the difference in greater efficiency and lower overhead.

The number of employees now at work in the Plant, namely about 75, is smaller than it has ever been. This is due to the policy of the superintendent, and shows a desire on his part to keep the pay roll down as much as possible.

Besides the work of survey in the Plant itself, I obtained prices from other printing concerns on a selected group of printing jobs representative of the general line of work performed in the Plant. This was done with a view to obtaining comparisons between prices charged to city departments by the Plant and the prices estimated on the same work by commercial printers. The average of the prices estimated by commercial printers was 18.7 per cent. higher than the charges by the Printing Department for the same work.

The charges made by the Printing Department are not larger than conditions warrant. It is possible that in normal times commercial printers may occasionally be willing to quote prices lower than those of the Printing Department for certain work. As a general rule, however, it will be found that the Plant's prices are reasonable as compared with those of commercial offices similarly organized and operated, and especially such offices as comply with union conditions to the same extent as the Printing Department.

An important part of the Plant's work is the book binding and other bindery work required by city departments, nearly all of which is performed for the Plant by outside contractors. By far the great bulk of this work is performed by the George Coleman Company. I have compared the Coleman prices on city work with prices charged by them to other concerns, and find that the City of Boston enjoys the advantage of very low figures on this class of work. In addition to this, the Coleman Company, through their Mr. Dykeman, maintains a personal touch with the city work and the heads of departments, which makes for most efficient service and is greatly to the city's advantage. The stationery required by city departments has always been purchased through the Superintendent of Printing. In 1917 Mayor Curley ordered the Superintendent of Printing to lay in a stock of stationery in order to supply city departments at low cost. On the whole this practice has resulted in a considerable saving, as will be seen from the figures herewith. These figures do not include money expended by the Police Department, School Department or a number of county offices:

1913	\$24,407 62	1916	\$26,072 91
1914	27,381 83	1917	24,308 08
1915	22,973 58	1918	21,333 42

The 1918 figure of \$21,333.42 showed a gross profit of \$2,320.40 to the Printing Department, which was sufficient to pay the expense to the department of handling the business. The decrease in volume of stationery used in the city's business, in the face of the present general increase in prices, needs no comment.

If the Plant is to be maintained as a city institution there is no reason why it should not be obliged to perform all printing work for which the city pays. There are certain county offices which send none of their printing to the Plant. The considerable increase in volume which would result if this practice were reversed would tend to reduce the cost of all the city work. This

matter has been agitated for a number of years without result, and I would recommend that suitable legislation be obtained in order to force all work for which the city pays into the City Printing Plant.

The rent paid by the Plant for its present quarters is about \$9,000 a year, as compared with \$3,000 in its premises on Causeway street ten years ago. While it is not likely that the present figure can be reduced so much, it is entirely feasible to reduce it somewhat by subletting floor space not needed.

I believe that the changes in equipment and arrangement above referred to will ultimately result in the saving of at least \$40,000 per year, on the basis of increases now in sight. It will probably take some months to put them into full effect, but by far the largest savings can be made almost immediately.

According to the last report of the Superintendent of Printing, the value of the Plant is placed at \$37,919.18. In my opinion this valuation is altogether too low, and is due to the generous depreciation charged in former years. The Plant value is probably nearer \$75,000, especially considering present increased prices of machinery and material. An appraisal should be made to ascertain the present worth of the Plant and the account altered accordingly.

The buying for the Plant is performed by the superintendent, or under his direction, and is businesslike in method and conservative in volume. For all important purchases it is his practice to require written bids, which are kept on file, and in each case concerning which I made inquiry he was able to furnish me all of the evidence in the transaction.

The superintendent shows himself fully alive to the city's interests and able to resist political and labor pressure. He has achieved results which are at least equal to those of any of his predecessors.

Respectfully submitted,

JAMES H. SMYTH.

BOSTON, Mass., January 5, 1920.

MR. GEORGE A. FLYNN,
Chairman, Boston Finance Commission, Boston,
Mass.:

DEAR SIR,— My survey of the work of the Printing Department leads me to suggest that the department can save money on investment, labor and upkeep by reducing its composing room and pressroom equipment. Two or more cylinder presses can be dispensed with.

It is also the case that the composing room as at present equipped is more expensive than it needs to be. For only about three months of the year is there sufficient work to keep the whole equipment employed. For the other nine months there is seldom work enough to employ more than one third of the Plant's typesetting machinery. In my opinion the Plant should dispose of nearly all of its monotype equipment, installing linotypes in their place. There are at present fifteen monotype keyboards and nine monotype casting machines used by the Printing Department. I believe that the Plant's work could be most readily performed by not exceeding six linotypes—perhaps retaining three monotype keyboards and two monotype casting machines for such work as is better performed by these machines, which is comparatively small in quantity.

A monotype equipment necessitates the employment of keyboard operators, castermen, caster assistants and an unusual number of hand correctors. Each linotype machine needs only one operator, who makes his own corrections. This change, in addition to making important pay roll savings, would also reduce the amount of floor space required and contribute largely in the saving of other overhead expenses.

Respectfully submitted,

JAMES H. SMYTH.

BOSTON, MASS., January 12, 1920.

MR. GEORGE A. FLYNN,
*Chairman, Boston Finance Commission, Boston,
 Mass.:*

DEAR SIR,— The Superintendent of Printing should be empowered to make the following changes in the machine equipment of the printing plant:

To sell two, and possibly three, Whitlock cylinder printing presses.

This will enable him to keep his pressroom force at the present minimum of personnel, with the least possible friction. The force and equipment remaining will be ample to turn out the maximum volume of the city's work. There will be a material reduction in floor space required and in other overhead expense. The presses may be disposed of at a good figure in the present market, and converting them into cash will reduce unproductive plant investment. He may also further reduce personnel by one pressman and one press feeder, within his discretion.

To substitute linotype or intertype machines for the present equipment of monotypes.

There are now fifteen monotype keyboards and nine monotype casters in the plant. All of the work performed by these machines can be equally well done by not exceeding six linotype or intertype machines. The superintendent should be empowered to effect this change at once or gradually, as he deems best in the conduct of his business. The following table shows the difference in the forces required to operate the machines, the linotype and intertype requiring exactly the same number:

MONOTYPE.

Fifteen keyboards, each one operator	15
Nine casters, foreman	1
Casters	2
Assistants	3

To make the necessary hand corrections and perform extra proofroom work required by monotype machine product, plus delay in makeup	12
	<u>—</u>
	33

LINOTYPE OR INTERTYPE.

Six machines, each one operator	6
Machinist	1
Necessary hand correction	1
	<u>—</u>
Saving at least	8
	<u>—</u>
	25

The savings indicated are on the basis of a maximum force, and with the pressroom savings show a total of over \$55,000 annually, exclusive of upkeep, rent and overhead savings, which will be considerable. Since the maximum force is not at present employed, it is possible savings may not total over \$40,000 annually.

The linotype and intertype machines require only gas (to keep metal hot) and electricity (for power). The monotype requires a constant supply of water (to cool molds), compressed air (for keyboards), gas (to keep metal hot), electricity (for power) and paper rolls (for keyboard perforation). The repair and supply upkeep of a monotype plant is most costly.

The only important job now performed in the Plant which may possibly be affected by this change is the police list, because of its peculiar tabular nature and because of the amount of composition involved. The superintendent is confident, however, that this job also can be handled, and I agree with him that it can be performed, though perhaps with difficulty. In any event, this job can be done by contract in a monotype shop for perhaps \$4,000 more than last year's Plant price of approximately \$14,000, and this \$4,000 is the only offset possible against savings of over \$40,000.

Respectfully submitted,

JAMES H. SMYTH.

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